

Virginia Department of Health
Electronic Lab Report Implementation Guide,
HL7 Version 2.5.1

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At the time of the publishing of this guide, VDH is aware of the change of Meaningful Use to Promoting Interoperability. VDH is actively working to update its websites and other resources to reflect this update in terminology, but at the time of the writing of this guide, changes have not yet been made to those resources. To avoid confusion, VDH will continue to use the term Meaningful Use (MU) throughout the guide.

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Introduction

This document presents Virginia Department of Health (VDH)-specific amplifications and constraints to the *HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 (US Realm)*. It is intended to assist submitters in successfully preparing messages to transmit reportable laboratory findings to VDH and demonstrating Meaningful Use of electronic health records.

Onboarding Process for Electronic Lab Reporting (ELR) in Virginia

The following are steps for ELR reporting to VDH:

Step 1. Registration: Register intent to submit ELR data for Meaningful Use (MU).

- Register using the [VDH Meaningful Use Registration System](#).
- VDH will provide an acknowledgement of successful registration.
- Your Meaningful Use status will be “Registered”.
- You are strongly encouraged to schedule a planning call with VDH. Email MeaningfulUse@vdh.virginia.gov.
- Please use the [VDH ELR Submission Checklist](#) to track your progress.

Step 2. Message Structure Validation: Generate ELR messages with test data for structural validation by VDH.

- VDH will provide an invitation indicating you should begin the onboarding process. Your Meaningful Use status will be “Invited to Onboard” and once you begin to submit messages it will change to “Testing and Validation”.
- Please code tests, findings, and other relevant information using LOINC and SNOMED CT. **Map or build out ALL reportable findings that your facility generates.**
- Provide VDH with a list of all unique LOINC and SNOMED CT combinations for reportable findings from your laboratory.
- Prepare message content and structure according to the [HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 \(US Realm\)](#) and the [Virginia Department of Health Electronic Lab Report Implementation Guide, HL7 Version 2.5.1](#).
- Before submitting your messages to VDH, submit sample messages through the [National Institutes of Standards and Technology’s \(NIST\) ELR validation tool](#) and use the NIST feedback to refine messages. Please be aware that the NIST validator does not assure that all message requirements will be met.
- Submit sample messages to VDH by e-mail (MeaningfulUse@vdh.virginia.gov) for structural validation. Email sample messages as .txt attachments.
- These messages may use data from a test environment. If production data are used, please send securely (encrypted).
- Use VDH feedback to refine the message structure to meet Meaningful Use and VDH message requirements.

Step 3. Connectivity: Set up transport option with ConnectVirginia.

- Select a transport method.
- Work with ConnectVirginia to establish and test transport.

Step 4. Message Content Validation: Submit ELR messages to VDH for content validation using selected transport method.

- Submit messages for content validation through the selected transport method.
- Messages for content validation must use data from the production environment.
- Provide copies of lab reports submitted to the local health department for use in content validation. Fax copies to (804) 864-8052, to the attention of “ELR Validation Team”.
- Refine ELR messages per feedback to meet Meaningful Use and VDH requirements and obtain approval.

Step 5. Production: Initiate ongoing submission of ELR data and participate in periodic quality assurance activities.

- Initiate regular production transmission of ELR messages to VDH.
- Your Meaningful Use status will be updated from *“Testing and Validation”* to *“In Production”*.
- Use VDH feedback as necessary to ensure quality of data.
- If attesting for Stage 2 or Stage 3: VDH will provide you with acknowledgement of ongoing data transmission for your attestation period at the completion of this step.
- Continue with current paper-based reporting to the local health department in parallel with ELR submission until notified that submission of paper reports to the local health department can be stopped.

Facilities are expected to maintain ELR transmissions to comply with state reporting requirements and to meet Meaningful Use objectives. More information on these steps is available on the VDH Meaningful Use website at <http://www.vdh.virginia.gov/meaningfuluse/>.

General VDH Submission Requirements

Frequency:

- Laboratories should submit a report when a reportable finding has been identified and not wait until testing on the specimen is complete, i.e., please send preliminary findings.
- Real time or daily batched submission of ELR messages is expected.
- Batched messages should be sent as early as possible after compilation and contain all findings from the preceding interval.

Types of submissions

- Facilities are responsible for filtering out non-reportable findings.
- For any reportable hepatitis finding, all available results from the hepatitis panel should be submitted.
- Microbial sensitivity findings should be submitted for the following organisms, when available:
 - *Mycobacterium tuberculosis* complex
 - *Neisseria gonorrhea*
 - *Staphylococcus aureus* with resistance to vancomycin (VRSA), or intermediate resistance to vancomycin (VISA).

Identifiers

VDH requires the use of identifiers where appropriate. Examples of expected identifiers include:

- Medical Record Number
- Specimen Accession Number
- International Standards Organization Object Identifier (OID)
- Clinical Laboratory Improvement Amendments (CLIA) number
- National Provider Identifier (NPI)

Identifiers are used in HL7 messages to uniquely identify facilities, organizations, software systems and applications, providers, patients, coded elements, and specimens. Along with the identifier, information should also be provided on the “assigning authority” to indicate what organization, software system or application assigned the identifier. This information is particularly important in indicating the facility associated with a patient medical record number or a specimen accession number.

OIDs, CLIA numbers, or NPIs are expected for the Universal Identifier, Assigning Authority ID, Assigning Facility ID, and Organization Identifier fields. For more information on OIDs and obtaining one, please visit <https://www.hl7.org/oid/index.cfm>

Vocabulary

VDH requires the use of standard vocabulary where appropriate. Examples of expected standard vocabulary include:

- Logical Observation Identifiers Names and Codes (LOINC)
- Systemized Nomenclature of Medicine Clinical Terms (SNOMED CT)
- Unified Code for Units of Measure (UCUM)

Because the reporting facility is the subject matter expert regarding its test samples and results, it is responsible for performing the mapping to these vocabularies.

The use of LOINC is required in OBX-3 (Observation Identifier) and recommended in OBR-4 (Universal Service ID). The use of SNOMED CT is required in OBX-5 (Observation Value) for coded lab results (CWE data types) and recommended in SPM-4 (Specimen Type). Local codes may be included in addition to standardized codes. If sending local codes, they are expected in the second triplet of the field.

Data Types for Observations

Findings transmitted in OBX-5 should be sent in CWE or SN format (see pages 38 and 39 for details).

Contact Information

If you have questions or need more information about ELR message submission to VDH, please contact us at MeaningfulUse@vdh.virginia.gov.

Useful Resources

HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 (US Realm) – This guide provides HL7 specifications for the ELR message.

http://www.hl7.org/implement/standards/product_brief.cfm?product_id=98

Conditions Reportable by Directors of Laboratories in Virginia – Use this document for information on the findings that are required to be reported to VDH by laboratories.

http://www.vdh.virginia.gov/Epidemiology/documents/pdf/RepCond_TableforLabs.pdf

Virginia Department of Health Meaningful Use website – This website provides helpful information about the onboarding process and includes a link to the VDH Meaningful Use Registration System.

<http://www.vdh.virginia.gov/meaningfuluse/>

LOINC Lookup and Verification Lookup Service- This website provides a database to lookup valid LOINC codes to be used in reporting ELRs.

http://www.hipaaspace.com/medical_billing/coding/logical_observation_identifiers_names_codes/loinc_codes_lookup.aspx

SNOMED CT Browser- This website provides a database to lookup valid SNOMED codes to be used in reporting ELRs.

<https://snomedbrowser.com/>

Message Segments, Structure, and Formatting

The section below is meant to aid in the construction of an ELR message. The table lists the expected segments of an HL7 ELR message submitted to VDH and indicates whether they are required (R) or optional (O).

| HL7 ELR Message Segments | | |
|--|-----|--|
| Segment | Use | Description |
| Message Header (MSH) | R | The message header (MSH) segment contains information describing how to parse and process the message. It includes identification of message delimiters, sender, receiver, message type and a timestamp. |
| Software Segment (SFT) | R | <p>Each application that touches the message on the way to the destination application must add a SFT segment for its application.</p> <p>The first repeat (i.e., the Laboratory Result Sender actor) is required. Any other application that transforms the message must add an SFT segment for that application. Other applications that route or act as a conduit may add an SFT but are not required to do so.</p> |
| Patient Identification (PID) | R | The patient identification (PID) segment provides important identification information about the patient and is used as the primary means of communicating the identifying and demographic information about a patient. |
| Patient Notes and Comments (NTE) | O | This NTE segment may be used for notes or comments pertaining to the patient identified in the PID segment. It should not contain order or result related comments. |

| | | |
|---|---|---|
| Next of Kin (NK1) | O | Please use the next of kin (NK1) segment for parent/guardian information, if it is available, when reporting testing results for children. |
| Patient Visit Information (PV1) | O | The patient visit information (PV1) segment contains basic inpatient or outpatient information. |
| Common Order (ORC) | R | The common order (ORC) segment contains basic information about the order for testing of the specimen. This segment includes identifiers for the order, who placed the order, when it was placed and what action to take regarding the order. |
| Observation Request (OBR) | R | The observation request (OBR) segment is used to capture information about a single test performed on the specimen. Most importantly, the OBR identifies the type of test performed on the specimen, and relates that information to the order for the testing. |
| Observation Request Notes and Comments (NTE) | O | The OBR NTE segment is generally not expected in ELR submissions to VDH. |
| Observation/Result (OBX) | R | For laboratory testing, the observation/result (OBX) segment normally reports the results of a test performed on a specimen. Each OBX segment contains information regarding a single observation result including the test type, result, and time. |
| Observation/Result Notes and Comments (NTE) | O | This NTE segment may be used for notes or comments pertaining to the result being reported in the OBX segment. |
| Specimen (SPM) | R | The Specimen (SPM) segment contains information regarding the type of specimen, where and how it was collected, who collected it, and some basic characteristics of the specimen. |

Usage (Use) codes for the HL7 ELR message segments tables:

- C Conditional
- CE Conditional, but may be empty
- O Optional
- R Required to be sent
- RE Required to be sent but can be empty if information is not available

The Length Column is used to specify the character limit for the particular segment. If no length is specified, the limit is undefined. VDH reserves the right to specify limits for these fields according to our surveillance system limitations.

The table below lists the data types included in the VDH ELR specifications.

| Data Type (DT) Codes Used for Data Elements in Message Segment Tables | |
|--|---|
| Code | Text Description |
| CE | Coded Element |
| CQ | Composite Quantity with Units |
| CWE | Coded with Exceptions |
| CX | Extended Composite ID with Check Digit |
| DR | Date/Time Range |
| DTM | Date/Time |
| EI | Entity Identifier |
| EIP | Entity Identifier Pair |
| FN | Family Name |
| FT | Formatted Text Data |
| HD | Hierarchic Designator |
| ID | Coded Values for HL7 Tables |
| IS | Coded Values for User-Defined Tables |
| SN | Structured Numeric |
| MSG | Message Type |
| NM | Numeric |
| PL | Person Location |
| PRL | Parent Result Link |
| PT | Processing Time |
| SAD | Street Address |
| SI | Sequence ID |
| ST | String |
| TS | Time Stamp |
| TX | Text Data |
| VID | Version Identifier |
| XAD | Extended Address |
| XCN | Extended Composite ID Number and Name |
| XON | Extended Composite Name and ID Number for Organizations |
| XPN | Extended Person Name |
| XTN | Extended Telecommunications Number |

Data Element Specifications

The tables below outline the data elements, by message segment, requested for ELR submission.

| MESSAGE HEADER SEGMENT (MSH) | | | | | |
|---|---------|----|--------|-----|--|
| The message header (MSH) segment contains information describing how to parse and process the message. This includes identification of message delimiters, sender, receiver, message type, and timestamp. | | | | | |
| Field Name | Seq | DT | Length | Use | Notes/Value Set |
| Field Separator | MSH-1 | ST | 1 | R | Literal value “ ”. |
| Encoding Characters | MSH-2 | ST | 5 | R | Literal values “^~\&#” OR “^~\&”. |
| Sending Application | MSH-3 | HD | 227 | RE | Used to identify the sending application. |
| Namespace ID | MSH-3.1 | IS | 20 | RE | Name of the sending application. Please discuss format of name and any abbreviations with VDH. |
| Universal ID | MSH-3.2 | ST | 199 | RE | An OID for the sending application is expected. If the sending application does not have a standards-based ID, please discuss the use of an alternate ID with VDH. |
| Universal ID Type | MSH-3.3 | ID | 6 | RE | Expecting “ISO” if an OID was used in MSH-3.2 or “ID” if an alternate identifier was used. |

| | | | | | |
|-----------------------|---------|----|-----|----|---|
| Sending Facility | MSH-4 | HD | 27 | R | Used to identify the sending facility. |
| Namespace ID | MSH-4.1 | IS | 20 | R | Name of the sending facility. Please discuss format of name and any abbreviations with VDH. |
| Universal ID | MSH-4.2 | ST | 199 | R | The sending facility's CLIA number is required by VDH. |
| Universal ID Type | MSH-4.3 | ID | 6 | R | Literal value: "CLIA". This indicates the ID type used in MSH-4.2. |
| Receiving Application | MSH-5 | HD | 227 | RE | Used to identify the receiving application. |
| Namespace ID | MSH-5.1 | IS | 20 | R | Literal value: "VDHELRL". |
| Universal ID | MSH-5.2 | ST | 199 | R | Literal value: "2.16.840.1.113883.3.3556.6.1". |
| Universal ID Type | MSH-5.3 | ID | 6 | R | Literal value: "ISO". |
| Receiving Facility | MSH-6 | HD | 227 | R | Used to identify the receiving facility. |
| Namespace ID | MSH-6.1 | IS | 20 | R | Literal value: "VDH". |
| Universal ID | MSH-6.2 | ST | 199 | R | Literal value: "2.16.840.1.113883.3.3556". |
| Universal ID Type | MSH-6.3 | ID | 6 | R | Literal value: "ISO". |
| Date/Time of Message | MSH-7 | TS | 26 | R | Date/Time the sending system created the message. Format: YYYYMMDD[HHMM[SS]] |

| | | | | | |
|----------------------------------|---------|-----|-----|----|--|
| Message Type | MSH-9 | MSG | 15 | R | Defines the type of HL7 message being sent. Literal value: "ORU^R01^ORU_R01". |
| Message Code | MSH-9.1 | ID | 3 | R | Literal value: "ORU". |
| Trigger Event | MSH-9.2 | ID | 3 | R | Literal value: "R01". |
| Message Structure | MSH-9.3 | ID | 7 | R | Literal value: "ORU_R01". |
| Message Control ID | MSH-10 | ST | 199 | R | A number or other identifier that uniquely identifies the message. The recommended format for this field is a timestamp and a sequence number. |
| Processing ID | MSH-11 | PT | 3 | R | Indicates the intent for processing the message. Literal values: "D" for Debugging or "P" for Production. |
| Version ID | MSH-12 | VID | 5 | R | Literal value: "2.5.1" (Note that Meaningful Use requires use of an HL7 v 2.5.1 message). |
| Accept Acknowledgement Type | MSH-15 | ID | 2 | RE | Indicates if/when sender wants to receive an acknowledgement that the message was received by VDH. VDH will send an acknowledgement. Expecting "AL" (Always), but VDH will accept "NE" (Never) if the sender prefers not to receive an acknowledgement. Using "AL" will assure the sender receives an acknowledgement that the message was received by VDH. This is important in assuring that the ELR message(s) was successful. Other valid values are Table HL70155 – Acknowledgement Type . |
| Application Acknowledgement Type | MSH-16 | ID | 2 | RE | Indicates if/when sender wants to receive an acknowledgement that the message was received by the target application at VDH. VDH does not send application-level acknowledgements. Expecting "NE" (Never). Other valid values are Table HL70155 – Acknowledgement Type . |

| | | | | | |
|----------------------------|----------|----|-----|----|---|
| Message Profile Identifier | MSH-21 | EI | 427 | R | Indicates adherence to a message profile. Message profiles contain detailed explanations of grammar, syntax, and usage for a particular message or set of messages. |
| Entity Identifier | MSH-21.1 | ST | 199 | R | Expecting "PHLabReport-Ack" if MSH-15 = "AL" or "PHLabReport-NoAck" if MSH-15 = "NE". |
| Namespace ID | MSH-21.2 | IS | 20 | RE | Literal value: "HL7". |
| Universal ID | MSH-21.3 | ST | 199 | R | Literal value: "2.16.840.1.113883.9.11". |
| Universal ID Type | MSH-21.4 | ID | 6 | R | Literal value: "ISO". |

| SOFTWARE SEGMENT (SFT) | | | | | |
|---|---------|-----|--------|-----|--|
| The software segment (SFT) provides information about the sending application or other applications that manipulate the message before it reaches the receiving application for processing. | | | | | |
| Field Name | Seq | DT | Length | Use | Notes/Value Set |
| Software Vendor Organization | SFT-1 | XON | 50 | R | Used to identify the software vendor for the laboratory information system. |
| Organization Name | SFT-1.1 | ST | 4 | CE | Name of the software vendor. Please discuss format of name and any abbreviations with VDH. |

| Organization Name Type Code | SFT-1.2 | IS | 20 | RE | <div>Defines the type of name in SFT-1.1. Use a valid type code value. If empty, legal name is assumed. Expecting code value only.</div> <div>Valid values include (excerpt of Table HL70204):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>D</td><td>Display name</td></tr><tr><td>L</td><td>Legal name</td></tr></table> | Value | Description | D | Display name | L | Legal name |
|--|--------------|----|----|----|--|-------|-------------|---|--------------|---|------------|
| Value | Description | | | | | | | | | | |
| D | Display name | | | | | | | | | | |
| L | Legal name | | | | | | | | | | |
| Software Certified Version or Release Number | SFT-2 | ST | 15 | R | Latest software version number of the sending system. | | | | | | |
| Software Product Name | SFT-3 | ST | 20 | R | The name of the software that submitted the message. | | | | | | |
| Software Binary ID | SFT-4 | ST | 20 | R | Expecting the software binary ID for the software that created the message. Please consult with your software vendor for this information. If the binary ID is not available, repeat the software version number from SFT-2. | | | | | | |
| Software Install Date | SFT-6 | TS | 26 | RE | <div>Date/Time the submitting software was installed at the sending facility.</div> <div>Format: YYYYMMDD[HHMM[SS]]</div> | | | | | | |

| PATIENT IDENTIFICATION SEGMENT (PID) The patient identification (PID) segment contains basic information regarding the patient. This information includes patient name, date of birth, race and phone number. | | | | | |
|--|-------|----|--------|-----|--|
| Field Name | Seq | DT | Length | Use | Notes/Value Set |
| Set ID – PID | PID-1 | SI | 4 | R | Literal value: “1”. |
| Patient Identifier List | PID-3 | CX | 250 | R | PID-3 is a repeating field that can accommodate multiple patient identifiers. Generally, this field will provide a unique patient identifier assigned by the facility or application submitting the report to public health. |

| Patient ID | PID-3.1 | ST | 15 | R | VDH prefers that the first patient ID provided always be a laboratory assigned patient identifier or a patient medical record number. The identifier provided should allow the reporting or ordering facility to retrieve information on the patient when requested by public health. | | | | | | | | | | | | | | | | | | |
|-----------------------------|-----------------------------|----|-----|----|--|-------|-------------|----|----------------|----|-----------------------|----|-------------------------|----|-----------------------|----|-----------------------------|----|---------------|----|-----------------------------|----|------------------------|
| Assigning Authority | PID-3.4 | HD | 227 | R | Identifies the system, application, or organization that assigned the patient ID in PID-3.1. | | | | | | | | | | | | | | | | | | |
| Assigning Authority Name | PID-3.4.1 | IS | 20 | RE | The name of the assigning authority that assigned the patient ID. | | | | | | | | | | | | | | | | | | |
| Assigning Authority ID | PID-3.4.2 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. | | | | | | | | | | | | | | | | | | |
| Assigning Authority ID Type | PID-3.4.3 | ID | 6 | R | Expecting “CLIA” if a CLIA number is used in PID-3.4.2, “NPI” if an NPI is used, “ISO” if an OID is used, or “ID” if an alternate identifier is used. | | | | | | | | | | | | | | | | | | |
| Identifier Type Code | PID-3.5 | ID | 5 | R | <div>Defines the type of patient ID in PID-3.1. Expecting code value only.</div> <div>Valid values include (excerpt of Table HL70203):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>AN</td><td>Account Number</td></tr><tr><td>BR</td><td>Birth Registry Number</td></tr><tr><td>DL</td><td>Driver’s License Number</td></tr><tr><td>MR</td><td>Medical Record Number</td></tr><tr><td>PI</td><td>Patient Internal Identifier</td></tr><tr><td>PN</td><td>Person Number</td></tr><tr><td>PT</td><td>Patient External Identifier</td></tr><tr><td>SS</td><td>Social Security Number</td></tr></table> | Value | Description | AN | Account Number | BR | Birth Registry Number | DL | Driver’s License Number | MR | Medical Record Number | PI | Patient Internal Identifier | PN | Person Number | PT | Patient External Identifier | SS | Social Security Number |
| Value | Description | | | | | | | | | | | | | | | | | | | | | | |
| AN | Account Number | | | | | | | | | | | | | | | | | | | | | | |
| BR | Birth Registry Number | | | | | | | | | | | | | | | | | | | | | | |
| DL | Driver’s License Number | | | | | | | | | | | | | | | | | | | | | | |
| MR | Medical Record Number | | | | | | | | | | | | | | | | | | | | | | |
| PI | Patient Internal Identifier | | | | | | | | | | | | | | | | | | | | | | |
| PN | Person Number | | | | | | | | | | | | | | | | | | | | | | |
| PT | Patient External Identifier | | | | | | | | | | | | | | | | | | | | | | |
| SS | Social Security Number | | | | | | | | | | | | | | | | | | | | | | |
| Assigning Facility | PID-3.6 | HD | 227 | R | Identifies the facility that assigned the patient ID in PID-3.1. | | | | | | | | | | | | | | | | | | |
| Assigning Facility Name | PID-3.6.1 | IS | 20 | RE | The name of the facility that assigned the patient ID. | | | | | | | | | | | | | | | | | | |
| Assigning Facility ID | PID-3.6.2 | ST | 199 | R | The CLIA number, NPI, OID, or other ID for the assigning facility. | | | | | | | | | | | | | | | | | | |
| Assigning Facility ID Type | PID-3.6.3 | ID | 6 | R | Expecting “CLIA” if a CLIA number is used in PID-3.6.2, “NPI” if an NPI is used, “ISO” if an OID is used, or “ID” if an alternate identifier is used. | | | | | | | | | | | | | | | | | | |

| Patient Name | PID-5 | XP | 294 | R | The complete name of the patient. | | | | | | | | | | | | | | | | |
|----------------------|---------------------------------------|----|-----|----|--|-------|-------------|---|--------------|---|------------|---|---------------------------------------|---|----------------------------------|---|------------|---|-------------|---|----------|
| Last Name | PID-5.1 | FN | | R | The patient’s family name/surname. | | | | | | | | | | | | | | | | |
| First Name | PID-5.2 | ST | | R | The patient’s given name. | | | | | | | | | | | | | | | | |
| Middle Name/Initials | PID-5.3 | ST | | RE | The patient’s middle initial or middle name. | | | | | | | | | | | | | | | | |
| Suffix | PID-5.4 | ST | | RE | The patient’s suffix (e.g., JR or III). | | | | | | | | | | | | | | | | |
| Prefix | PID-5.5 | ST | | RE | The patient’s prefix (e.g., DR). | | | | | | | | | | | | | | | | |
| Name Type Code | PID-5.7 | ID | | RE | <div>Defines the type of name in PID-5. Expecting code value only. Use of legal name (“L”) is expected. If empty, legal name is assumed.</div> <div>Valid values include (excerpt of Table HL70200):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>C</td><td>Adopted Name</td></tr><tr><td>A</td><td>Alias Name</td></tr><tr><td>S</td><td>Coded Pseudo-Name to ensure anonymity</td></tr><tr><td>T</td><td>Indigenous/Tribal/Community Name</td></tr><tr><td>L</td><td>Legal Name</td></tr><tr><td>M</td><td>Maiden Name</td></tr><tr><td>N</td><td>Nickname</td></tr></table> | Value | Description | C | Adopted Name | A | Alias Name | S | Coded Pseudo-Name to ensure anonymity | T | Indigenous/Tribal/Community Name | L | Legal Name | M | Maiden Name | N | Nickname |
| Value | Description | | | | | | | | | | | | | | | | | | | | |
| C | Adopted Name | | | | | | | | | | | | | | | | | | | | |
| A | Alias Name | | | | | | | | | | | | | | | | | | | | |
| S | Coded Pseudo-Name to ensure anonymity | | | | | | | | | | | | | | | | | | | | |
| T | Indigenous/Tribal/Community Name | | | | | | | | | | | | | | | | | | | | |
| L | Legal Name | | | | | | | | | | | | | | | | | | | | |
| M | Maiden Name | | | | | | | | | | | | | | | | | | | | |
| N | Nickname | | | | | | | | | | | | | | | | | | | | |
| Mother’s Maiden Name | PID-6 | XP | 250 | RE | The patient’s mother’s maiden name. VDH generally does not expect this information. | | | | | | | | | | | | | | | | |
| Last Name | PID-6.1 | FN | | RE | The patient’s mother’s family name/surname. | | | | | | | | | | | | | | | | |
| First Name | PID-6.2 | ST | | RE | The patient’s mother’s given name. | | | | | | | | | | | | | | | | |

| Middle Name/Initials | PID-6.3 | ST | | RE | The patient’s mother’s middle initial or middle name. | | | | | | | | | | | | | | |
|-----------------------|----------------|-----|-----|----|---|-------|-------------|---|-----------|---|--------|---|------|---|----------------|---|-------|---|---------|
| Suffix | PID-6.4 | ST | | RE | The patient’s mother’s suffix (e.g., JR or III). | | | | | | | | | | | | | | |
| Prefix | PID-6.5 | ST | | RE | The patient’s mother’s prefix (e.g., DR). | | | | | | | | | | | | | | |
| Name Type Code | PID-6.7 | ID | | RE | Defines the type of name in PID-6. Literal value: “M” (Maiden Name) from Table HL70200 – Name Type is required. | | | | | | | | | | | | | | |
| Date/Time of Birth | PID-7 | TS | 26 | RE | The patient’s date of birth. Format: <i>YYYYMMDD</i> | | | | | | | | | | | | | | |
| Administrative Sex | PID-8 | CWE | 1 | RE | Defines the patient’s gender. | | | | | | | | | | | | | | |
| Identifier | PID-8.1 | IS | 1 | RE | Defines the patient’s gender. Expecting code value only. Valid values are (Table HL70001) : <table><tr><th>Value</th><th>Description</th></tr><tr><td>A</td><td>Ambiguous</td></tr><tr><td>F</td><td>Female</td></tr><tr><td>M</td><td>Male</td></tr><tr><td>N</td><td>Not Applicable</td></tr><tr><td>O</td><td>Other</td></tr><tr><td>U</td><td>Unknown</td></tr></table> | Value | Description | A | Ambiguous | F | Female | M | Male | N | Not Applicable | O | Other | U | Unknown |
| Value | Description | | | | | | | | | | | | | | | | | | |
| A | Ambiguous | | | | | | | | | | | | | | | | | | |
| F | Female | | | | | | | | | | | | | | | | | | |
| M | Male | | | | | | | | | | | | | | | | | | |
| N | Not Applicable | | | | | | | | | | | | | | | | | | |
| O | Other | | | | | | | | | | | | | | | | | | |
| U | Unknown | | | | | | | | | | | | | | | | | | |
| Text | PID-8.2 | ST | | CE | The standardized text description that corresponds with the administrative sex code in PID-8.1. | | | | | | | | | | | | | | |
| Name of Coding System | PID-8.3 | ID | | CE | Literal value: “HL70001”. This indicates the coding system used for administrative sex in PID-8.1. | | | | | | | | | | | | | | |
| Race | PID-10 | CWE | 478 | RE | Race should be submitted if known. Patient may have more than one race defined. | | | | | | | | | | | | | | |

| | | | | | | |
|---------------------------------|----------|-----|-----|----|--|---|
| Identifier | PID-10.1 | ST | 20 | RE | Defines the patient’s race category. Expecting code value only. | |
| | | | | | Valid values are (Table HL70005): | |
| | | | | | Value | Description |
| | | | | | 1002-5 | American Indian or Alaska Native |
| | | | | | 2028-9 | Asian |
| | | | | | 2054-5 | Black or African-American |
| | | | | | 2076-8 | Native Hawaiian or Other Pacific Islander |
| | | | | | 2131-1 | Other Race |
| 2106-3 | White | | | | | |
| Text | PID-10.2 | ST | 199 | CE | The standardized text description that corresponds with the race code in PID-10.1. | |
| Name of Coding Of System | PID-10.3 | ID | 20 | CE | Literal value: “HL70005”. This indicates the coding system used for race in PID-10.1. | |
| Alternate Identifier | PID-10.4 | ST | 20 | RE | Alternate local code used to identify patient race. | |
| Alternate Text Description | PID-10.5 | ST | | CE | Text description that corresponds to the local code in PID-10.4. | |
| Name of Alternate Coding System | PID-10.6 | ID | | CE | Identifies the type of code in PID-10.4. For local codes, expecting “L”. | |
| Patient Address | PID-11 | XAD | 513 | RE | Whenever possible, provide the address for the patient’s primary residence rather than the billing address. | |
| Street Address Line 1 | PID-11.1 | ST | 100 | RE | The patient’s street address (e.g., “123 Main St.”). If the patient address has an apartment/suite number, please include it in Street Address Line 1. | |
| Street Address Line 2 | PID-11.2 | ST | 100 | RE | | |
| City | PID-11.3 | ST | 50 | RE | The city from the patient’s address. | |
| State | PID-11.4 | ST | 50 | RE | The state from the patient’s address. Use the U.S. Postal Service 2-character state abbreviation (e.g., VA). | |

| ZIP or Postal Code | PID-11.5 | ST | 12 | RE | The zip code from the patient’s address. Use a valid 5-digit zip code. | | | | | | | | | | | | | | | | | | |
|---------------------|----------------------|-----|----|----|---|-------|-------------|---|---------------|---|----------------------|---|------|---|---------------|---|---------|---|--------|---|-----------|----|---------------|
| Country | PID-11.6 | ID | 3 | RE | Expecting “USA”. This field contains the country code where the addressee is located. Refer to Table HL70399 – Country Code for valid 3-character codes as defined by ISO 3166-1. If the field is not valued, then “USA” is assumed. | | | | | | | | | | | | | | | | | | |
| Address Type | PID-11.7 | ID | 3 | RE | <p>Defines the type of address in PID-11. Type code “H” (Home) from Table HL70190 – Address Type is expected. If residential address is provided, use type code “H” (Home). If patient address is submitted, this field is required. Expecting code value only.</p> <p>Valid values include (excerpt of Table HL70190):</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>B</td><td>Firm/Business</td></tr><tr><td>C</td><td>Current or Temporary</td></tr><tr><td>H</td><td>Home</td></tr><tr><td>L</td><td>Legal Address</td></tr><tr><td>M</td><td>Mailing</td></tr><tr><td>O</td><td>Office</td></tr><tr><td>P</td><td>Permanent</td></tr><tr><td>RH</td><td>Registry home</td></tr></table> | Value | Description | B | Firm/Business | C | Current or Temporary | H | Home | L | Legal Address | M | Mailing | O | Office | P | Permanent | RH | Registry home |
| Value | Description | | | | | | | | | | | | | | | | | | | | | | |
| B | Firm/Business | | | | | | | | | | | | | | | | | | | | | | |
| C | Current or Temporary | | | | | | | | | | | | | | | | | | | | | | |
| H | Home | | | | | | | | | | | | | | | | | | | | | | |
| L | Legal Address | | | | | | | | | | | | | | | | | | | | | | |
| M | Mailing | | | | | | | | | | | | | | | | | | | | | | |
| O | Office | | | | | | | | | | | | | | | | | | | | | | |
| P | Permanent | | | | | | | | | | | | | | | | | | | | | | |
| RH | Registry home | | | | | | | | | | | | | | | | | | | | | | |
| County Code | PID-11.9 | IS | 20 | RE | Submit the FIPS code for the county where the patient resides, if the information is available. If address is in an independent city in Virginia, submit the city FIPS code. Use the two-digit VA state code (“51”) followed by the three-digit county/city-specific code. | | | | | | | | | | | | | | | | | | |
| Phone Number – Home | PID-13 | XTN | 40 | RE | Whenever possible, provide the patient’s primary telephone number. | | | | | | | | | | | | | | | | | | |

| Telecom Use Code | PID-13.2 | ID | | RE | <p>Defines the type of phone number in PID-13. VDH prefers to receive the primary residence number ("PRN"). Expecting code value only.</p> <p>Valid values are (Table HL70201):</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>ASN</td><td>Answering Service Number</td></tr><tr><td>BPN</td><td>Beeper Number</td></tr><tr><td>EMR</td><td>Emergency Number</td></tr><tr><td>NET</td><td>Network (email) Address</td></tr><tr><td>ORN</td><td>Other Residence Number</td></tr><tr><td>PRN</td><td>Primary Residence Number</td></tr><tr><td>VHN</td><td>Vacation Home Number</td></tr><tr><td>WPN</td><td>Work Number</td></tr></table> | Value | Description | ASN | Answering Service Number | BPN | Beeper Number | EMR | Emergency Number | NET | Network (email) Address | ORN | Other Residence Number | PRN | Primary Residence Number | VHN | Vacation Home Number | WPN | Work Number | | |
|------------------------|--|----|---|----|---|-------|-------------|-----|--------------------------|-----|----------------|-----|------------------|----------|---|-----|------------------------|-----|--------------------------|-----|--|-----|----------------|-------|--|
| Value | Description | | | | | | | | | | | | | | | | | | | | | | | | |
| ASN | Answering Service Number | | | | | | | | | | | | | | | | | | | | | | | | |
| BPN | Beeper Number | | | | | | | | | | | | | | | | | | | | | | | | |
| EMR | Emergency Number | | | | | | | | | | | | | | | | | | | | | | | | |
| NET | Network (email) Address | | | | | | | | | | | | | | | | | | | | | | | | |
| ORN | Other Residence Number | | | | | | | | | | | | | | | | | | | | | | | | |
| PRN | Primary Residence Number | | | | | | | | | | | | | | | | | | | | | | | | |
| VHN | Vacation Home Number | | | | | | | | | | | | | | | | | | | | | | | | |
| WPN | Work Number | | | | | | | | | | | | | | | | | | | | | | | | |
| Telecom Equipment Type | PID-13.3 | ID | | RE | <p>Defines the type of technology/equipment for the phone number in PID-13. VDH prefers to receive the value for telephone ("PH") or cellular phone ("CP"). Expecting code value only.</p> <p>Valid values are (Table HL70202):</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>BP</td><td>Beeper</td></tr><tr><td>CP</td><td>Cellular Phone</td></tr><tr><td>FX</td><td>Fax</td></tr><tr><td>Internet</td><td>Internet Address: Use Only If Telecommunication Use Code Is NET</td></tr><tr><td>MD</td><td>Modem</td></tr><tr><td>PH</td><td>Telephone</td></tr><tr><td>TDD</td><td>Telecommunications Device for the Deaf</td></tr><tr><td>TTY</td><td>Teletypewriter</td></tr><tr><td>X.400</td><td>X.400 email address: Use Only If Telecommunication Use Code Is NET</td></tr></table> | Value | Description | BP | Beeper | CP | Cellular Phone | FX | Fax | Internet | Internet Address: Use Only If Telecommunication Use Code Is NET | MD | Modem | PH | Telephone | TDD | Telecommunications Device for the Deaf | TTY | Teletypewriter | X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET |
| Value | Description | | | | | | | | | | | | | | | | | | | | | | | | |
| BP | Beeper | | | | | | | | | | | | | | | | | | | | | | | | |
| CP | Cellular Phone | | | | | | | | | | | | | | | | | | | | | | | | |
| FX | Fax | | | | | | | | | | | | | | | | | | | | | | | | |
| Internet | Internet Address: Use Only If Telecommunication Use Code Is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| MD | Modem | | | | | | | | | | | | | | | | | | | | | | | | |
| PH | Telephone | | | | | | | | | | | | | | | | | | | | | | | | |
| TDD | Telecommunications Device for the Deaf | | | | | | | | | | | | | | | | | | | | | | | | |
| TTY | Teletypewriter | | | | | | | | | | | | | | | | | | | | | | | | |
| X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| Area Code | PID-13.6 | NM | 3 | CE | The area code of the patient's home telephone number. | | | | | | | | | | | | | | | | | | | | |

| Phone Number | PID-13.7 | NM | 7 | CE | The patient’s local home telephone number. | | | | | | | | | | | | | | | | | | |
|-------------------------|--------------------------|-----|----|----|---|-------|-------------|-----|--------------------------|-----|---------------|-----|------------------|-----|-------------------------|-----|------------------------|-----|--------------------------|-----|----------------------|-----|-------------|
| Extension | PID-13.8 | NM | | CE | The patient’s home telephone extension. VDH is expecting only numeric values in this field, if populated. Alpha characters in this field will cause messages to fail. | | | | | | | | | | | | | | | | | | |
| Any Text | PID-13.9 | ST | | O | This field can contain any text, such as notes pertaining to the phone number, e.g., “Cell”, “Mom”, “Call after 10pm”, etc. | | | | | | | | | | | | | | | | | | |
| Phone Number – Business | PID-14 | XTN | 40 | RE | The patient’s work telephone number, if available. | | | | | | | | | | | | | | | | | | |
| Telecom Use Code | PID-14.2 | ID | | RE | <div>Defines the type of phone number in PID-14. VDH prefers to receive the work number (“WPN”). Expecting code value only.</div> <div>Valid values are (Table HL70201):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>ASN</td><td>Answering Service Number</td></tr><tr><td>BPN</td><td>Beeper Number</td></tr><tr><td>EMR</td><td>Emergency Number</td></tr><tr><td>NET</td><td>Network (email) Address</td></tr><tr><td>ORN</td><td>Other Residence Number</td></tr><tr><td>PRN</td><td>Primary Residence Number</td></tr><tr><td>VHN</td><td>Vacation Home Number</td></tr><tr><td>WPN</td><td>Work Number</td></tr></table> | Value | Description | ASN | Answering Service Number | BPN | Beeper Number | EMR | Emergency Number | NET | Network (email) Address | ORN | Other Residence Number | PRN | Primary Residence Number | VHN | Vacation Home Number | WPN | Work Number |
| Value | Description | | | | | | | | | | | | | | | | | | | | | | |
| ASN | Answering Service Number | | | | | | | | | | | | | | | | | | | | | | |
| BPN | Beeper Number | | | | | | | | | | | | | | | | | | | | | | |
| EMR | Emergency Number | | | | | | | | | | | | | | | | | | | | | | |
| NET | Network (email) Address | | | | | | | | | | | | | | | | | | | | | | |
| ORN | Other Residence Number | | | | | | | | | | | | | | | | | | | | | | |
| PRN | Primary Residence Number | | | | | | | | | | | | | | | | | | | | | | |
| VHN | Vacation Home Number | | | | | | | | | | | | | | | | | | | | | | |
| WPN | Work Number | | | | | | | | | | | | | | | | | | | | | | |

| Telecom Equipment Type | PID-14.3 | ID | | RE | <div>Defines the type of technology/equipment for the phone number in PID-14. VDH prefers to receive the value for telephone ("PH") or cellular phone ("CP"). Expecting code value only.</div> <div>Valid values are (Table HL70202):</div> <table><tr><th>Values</th><th>Description</th></tr><tr><td>BP</td><td>Beeper</td></tr><tr><td>CP</td><td>Cellular Phone</td></tr><tr><td>FX</td><td>Fax</td></tr><tr><td>Internet</td><td>Internet Address: Use Only If Telecommunication Use Code Is NET</td></tr><tr><td>MD</td><td>Modem</td></tr><tr><td>PH</td><td>Telephone</td></tr><tr><td>TDD</td><td>Telecommunications Device for the Deaf</td></tr><tr><td>TTY</td><td>Teletypewriter</td></tr><tr><td>X.400</td><td>X.400 email address: Use Only If Telecommunication Use Code Is NET</td></tr></table> | Values | Description | BP | Beeper | CP | Cellular Phone | FX | Fax | Internet | Internet Address: Use Only If Telecommunication Use Code Is NET | MD | Modem | PH | Telephone | TDD | Telecommunications Device for the Deaf | TTY | Teletypewriter | X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET |
|------------------------|--|-----|---|----|--|--------|-------------|----|--------|----|----------------|----|-----|----------|---|----|-------|----|-----------|-----|--|-----|----------------|-------|--|
| Values | Description | | | | | | | | | | | | | | | | | | | | | | | | |
| BP | Beeper | | | | | | | | | | | | | | | | | | | | | | | | |
| CP | Cellular Phone | | | | | | | | | | | | | | | | | | | | | | | | |
| FX | Fax | | | | | | | | | | | | | | | | | | | | | | | | |
| Internet | Internet Address: Use Only If Telecommunication Use Code Is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| MD | Modem | | | | | | | | | | | | | | | | | | | | | | | | |
| PH | Telephone | | | | | | | | | | | | | | | | | | | | | | | | |
| TDD | Telecommunications Device for the Deaf | | | | | | | | | | | | | | | | | | | | | | | | |
| TTY | Teletypewriter | | | | | | | | | | | | | | | | | | | | | | | | |
| X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| Area Code | PID-14.6 | NM | 3 | CE | The area code of the patient’s work telephone number. | | | | | | | | | | | | | | | | | | | | |
| Phone Number | PID-14.7 | NM | 7 | CE | The patient’s local work telephone number. | | | | | | | | | | | | | | | | | | | | |
| Extension | PID-14.8 | NM | | CE | The patient’s work telephone extension. VDH is expecting only numeric values in this field, if populated. Alpha characters in this field will cause messages to fail. | | | | | | | | | | | | | | | | | | | | |
| Any Text | PID-14.9 | ST | | O | This field can contain any text, such as notes pertaining to the phone number, e.g. “Cell”, “Mom”, “Call after 10pm”, etc. | | | | | | | | | | | | | | | | | | | | |
| Marital Status | PID-16 | CWE | | RE | The patient’s marital status should be submitted if available. | | | | | | | | | | | | | | | | | | | | |

| Identifier | PID-16.1 | ST | | RE | <div>Defines the patient’s marital status. Expecting code value only.</div> <div>Valid values include (excerpt of Table HL70002):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>D</td><td>Divorced</td></tr><tr><td>M</td><td>Married</td></tr><tr><td>A</td><td>Separated</td></tr><tr><td>S</td><td>Single</td></tr><tr><td>W</td><td>Widowed</td></tr></table> | Value | Description | D | Divorced | M | Married | A | Separated | S | Single | W | Widowed |
|-----------------------------|------------------------|-----|-----|----|--|-------|-------------|---|--------------------|---|------------------------|---|-----------|---|--------|---|---------|
| Value | Description | | | | | | | | | | | | | | | | |
| D | Divorced | | | | | | | | | | | | | | | | |
| M | Married | | | | | | | | | | | | | | | | |
| A | Separated | | | | | | | | | | | | | | | | |
| S | Single | | | | | | | | | | | | | | | | |
| W | Widowed | | | | | | | | | | | | | | | | |
| Text | PID-16.2 | ST | | CE | The standardized text description that corresponds with the marital status code in PID-16.1. | | | | | | | | | | | | |
| Name of Coding System | PID-16.3 | ID | | CE | Literal value: “HL70002”. This indicates the coding system used for marital status in PID-16.1. | | | | | | | | | | | | |
| Ethnic Group | PID-22 | CWE | 478 | RE | The patient’s ethnicity should be submitted if available. | | | | | | | | | | | | |
| Identifier | PID-22.1 | ST | 20 | RE | <div>Defines the patient’s ethnic category. Expecting code value only.</div> <div>Valid values are (Table HL70189):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>H</td><td>Hispanic or Latino</td></tr><tr><td>N</td><td>Not Hispanic or Latino</td></tr><tr><td>U</td><td>Unknown</td></tr></table> | Value | Description | H | Hispanic or Latino | N | Not Hispanic or Latino | U | Unknown | | | | |
| Value | Description | | | | | | | | | | | | | | | | |
| H | Hispanic or Latino | | | | | | | | | | | | | | | | |
| N | Not Hispanic or Latino | | | | | | | | | | | | | | | | |
| U | Unknown | | | | | | | | | | | | | | | | |
| Text | PID-22.2 | ST | 199 | CE | The standardized text description that corresponds with the patient ethnicity code in PID-22.1. | | | | | | | | | | | | |
| Name of Coding System | PID-22.3 | ID | 20 | CE | This indicates the coding system used for ethnicity in PID-22.1. Literal value: “HL70189”. | | | | | | | | | | | | |
| Patient Death Date and Time | PID-29 | TS | 26 | RE | The date and time of the patient’s death. Format: YYYYMMDD[HHMM[SS]] | | | | | | | | | | | | |
| Patient Death Indicator | PID-30 | ID | 1 | RE | Expecting: “Y” if PID-29 is populated. | | | | | | | | | | | | |

| PID NTE – Use for Pregnancy Status Reporting Pregnancy status is epidemiologically important information and should be provided when available. | | | | | |
|--|-------|----|--------|-----|--|
| Field Name | Seq | DT | Length | Use | Notes/Value Set |
| Set ID – NTE | NTE-1 | SI | 4 | R | For the first NTE segment, the Set ID shall be “1”, for a second NTE segment, the Set ID shall be “2”, etc. Subsequent NTE segments under the same parent segment should increment the Set ID field. |
| Source of Comment | NTE-2 | ID | 8 | RE | Expecting value “P” if orderer/placer is source of comment or “L” if lab/filler department is source of comment. Values are from Table HL70105 – Source of Comment . |
| Comment | NTE-3 | FT | 65536 | R | ^Status (SNOMED codes: 261665006^Unknown, 7738600^Patient currently pregnant, or 60001007^Not pregnant). |
| Comment Type | NTE-4 | CE | 60 | RE | Expecting: “RE^Pregnancy status^HL70364”. Value is from Table HL70364 – Comment Type . |

| NEXT OF KIN SEGMENT (NK1) This segment is not expected unless relevant to the subject of the message. This information is of particular value to public health when the patient is a minor or in custodial care. | | | | | |
|---|---------|-----|--------|-----|--|
| Field Name | Seq | DT | Length | Use | Notes/Value Set |
| Set ID – NK1 | NK1-1 | SI | 4 | R | For the first NK1 segment, the Set ID shall be “1”, for a second NK1 segment, the Set ID shall be “2”, etc. Subsequent NK1 segments should increment the Set ID field. |
| Next of Kin Name | NK1-2 | XPN | 250 | RE | The complete name of the next of kin. If the patient is a child, please provide information in these fields on the parent or guardian, if it is available. |
| Last Name | NK1-2.1 | FN | 50 | RE | The next of kin/contact’s family name/surname. |

| First Name | NK1-2.2 | ST | 30 | RE | The next of kin/contact’s given name. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------|-----|----|----|--|-------|-------------|-----|---------|-----|------------|-----|-------|-----|-------------------|-----|--------|-----|------------|-----|----------|-----|-------------|-----|--------|-----|-----------|-----|---------|-----|--------|-----|--------|-----|---------------|
| Middle Name/Initials | NK1-2.3 | ST | 30 | RE | The next of kin/contact’s middle initial or middle name. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Suffix | NK1-2.4 | ST | 20 | RE | The next of kin/contact’s suffix (e.g., JR or III). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prefix | NK1-2.5 | ST | 20 | RE | The next of kin/contact’s prefix (e.g., DR). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name Type Code | NK1-2.7 | ID | 1 | RE | Defines the type of name sent in NK1-2. Use of legal name (“L”) is expected. If empty, legal name is assumed. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Next of Kin Relationship | NK1-3 | CWE | 60 | RE | The relationship of the next of kin/contact to the patient. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Next of Kin Relationship Code | NK1-3.1 | ST | 20 | RE | <div>Defines the relationship between the next of kin/contact and the patient. Expecting code value only.</div> <div>Valid values include (excerpt of Table HL70063):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>BRO</td><td>Brother</td></tr><tr><td>CGV</td><td>Care giver</td></tr><tr><td>CHD</td><td>Child</td></tr><tr><td>EMC</td><td>Emergency contact</td></tr><tr><td>FTH</td><td>Father</td></tr><tr><td>GCH</td><td>Grandchild</td></tr><tr><td>GRD</td><td>Guardian</td></tr><tr><td>GRP</td><td>Grandparent</td></tr><tr><td>MTH</td><td>Mother</td></tr><tr><td>SCH</td><td>Stepchild</td></tr><tr><td>SIB</td><td>Sibling</td></tr><tr><td>SIS</td><td>Sister</td></tr><tr><td>SPO</td><td>Spouse</td></tr><tr><td>WRD</td><td>Ward of court</td></tr></table> | Value | Description | BRO | Brother | CGV | Care giver | CHD | Child | EMC | Emergency contact | FTH | Father | GCH | Grandchild | GRD | Guardian | GRP | Grandparent | MTH | Mother | SCH | Stepchild | SIB | Sibling | SIS | Sister | SPO | Spouse | WRD | Ward of court |
| Value | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BRO | Brother | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CGV | Care giver | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHD | Child | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EMC | Emergency contact | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FTH | Father | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GCH | Grandchild | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GRD | Guardian | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GRP | Grandparent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MTH | Mother | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SCH | Stepchild | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIB | Sibling | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIS | Sister | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPO | Spouse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WRD | Ward of court | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|-----------------------|---------|-----|-----|----|--|
| Text | NK1-3.2 | ST | 199 | CE | The standardized text description that corresponds with the Next of Kin Relationship code in NK1-3.1 |
| Name of Coding System | NK1-3.3 | ID | 20 | CE | This indicates the coding system used for next of kin in NK1-3.1. Literal value: "HL70063". |
| Next of Kin Address | NK1-4 | XAD | 106 | RE | Whenever possible, provide the address for the next of kin/contact's primary residence rather than the billing address. |
| Street Address Line 1 | NK1-4.1 | SAD | 184 | RE | The next of kin/contact's street address (e.g., "123 Main St."). If the next of kin/contact's address has an apartment/suite number, please include it in Street Address Line 1. |
| Street Address Line 2 | NK1-4.2 | ST | 120 | RE | |
| City | NK1-4.3 | ST | 50 | RE | The city from the next of kin/contact's address. |
| State | NK1-4.4 | ST | 50 | RE | The state from the next of kin/contact's address. Use the U.S. Postal Service 2-character state abbreviation (e.g., VA). |
| Zip or Postal Code | NK1-4.5 | ST | 12 | RE | The zip code from the next of kin/contact's address. Use a valid 5-digit zip code. |
| Country | NK1-4.6 | ID | 3 | RE | Expecting "USA". This field contains the country code where the addressee is located. Refer to Table HL70399 – Country Code for valid 3-character codes as defined by ISO 3166-1. If the field is not valued, then "USA" is assumed. |
| Address Type | NK1-4.7 | ID | 3 | RE | Defines the type of address in NK1-4. If residential address is provided, use type code "H" (Home). If mailing address is used, use type code "M" (Mailing). If next of kin/contact's address is submitted, this field is required. |
| County Code | NK1-4.9 | IS | 20 | RE | Submit the FIPS code for the county where the next of kin/contact resides, if the information is available. If address is in an independent city in Virginia, submit the city FIPS code. Use the two-digit VA state code ("51") followed by the three-digit county/city-specific code. |
| Phone Number | NK1-5 | XTN | 40 | RE | Whenever possible, provide the next of kin/contact's home telephone number. |

| Telecom Use Code | NK1-5.2 | ID | 3 | RE | <div>Defines the type of phone number provided in NK1-5. VDH prefers to receive the primary residence number ("PRN"). Expecting code value only.</div> <div>Valid values are (Table HL70201):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>ASN</td><td>Answering Service Number</td></tr><tr><td>BPN</td><td>Beeper Number</td></tr><tr><td>EMR</td><td>Emergency Number</td></tr><tr><td>NET</td><td>Network (email) Address</td></tr><tr><td>ORN</td><td>Other Residence Number</td></tr><tr><td>PRN</td><td>Primary Residence Number</td></tr><tr><td>VHN</td><td>Vacation Home Number</td></tr><tr><td>WPN</td><td>Work Number</td></tr></table> | Value | Description | ASN | Answering Service Number | BPN | Beeper Number | EMR | Emergency Number | NET | Network (email) Address | ORN | Other Residence Number | PRN | Primary Residence Number | VHN | Vacation Home Number | WPN | Work Number | | |
|------------------------|--|----|---|----|--|-------|-------------|-----|--------------------------|-----|----------------|-----|------------------|----------|---|-----|------------------------|-----|--------------------------|-----|--|-----|----------------|-------|--|
| Value | Description | | | | | | | | | | | | | | | | | | | | | | | | |
| ASN | Answering Service Number | | | | | | | | | | | | | | | | | | | | | | | | |
| BPN | Beeper Number | | | | | | | | | | | | | | | | | | | | | | | | |
| EMR | Emergency Number | | | | | | | | | | | | | | | | | | | | | | | | |
| NET | Network (email) Address | | | | | | | | | | | | | | | | | | | | | | | | |
| ORN | Other Residence Number | | | | | | | | | | | | | | | | | | | | | | | | |
| PRN | Primary Residence Number | | | | | | | | | | | | | | | | | | | | | | | | |
| VHN | Vacation Home Number | | | | | | | | | | | | | | | | | | | | | | | | |
| WPN | Work Number | | | | | | | | | | | | | | | | | | | | | | | | |
| Telecom Equipment Type | NK1-5.3 | ID | 8 | RE | <div>Defines the type of technology/equipment for the phone number in NK1-5. VDH prefers to receive the value for telephone ("PH") or cellular phone ("CP"). Expecting code value only.</div> <div>Valid values are (Table HL70202):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>BP</td><td>Beeper</td></tr><tr><td>CP</td><td>Cellular Phone</td></tr><tr><td>FX</td><td>Fax</td></tr><tr><td>Internet</td><td>Internet Address: Use Only If Telecommunication Use Code is NET</td></tr><tr><td>MD</td><td>Modem</td></tr><tr><td>PH</td><td>Telephone</td></tr><tr><td>TDD</td><td>Telecommunications Device for the Deaf</td></tr><tr><td>TTY</td><td>Teletypewriter</td></tr><tr><td>X.400</td><td>X.400 email address: Use Only If Telecommunication Use Code Is NET</td></tr></table> | Value | Description | BP | Beeper | CP | Cellular Phone | FX | Fax | Internet | Internet Address: Use Only If Telecommunication Use Code is NET | MD | Modem | PH | Telephone | TDD | Telecommunications Device for the Deaf | TTY | Teletypewriter | X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET |
| Value | Description | | | | | | | | | | | | | | | | | | | | | | | | |
| BP | Beeper | | | | | | | | | | | | | | | | | | | | | | | | |
| CP | Cellular Phone | | | | | | | | | | | | | | | | | | | | | | | | |
| FX | Fax | | | | | | | | | | | | | | | | | | | | | | | | |
| Internet | Internet Address: Use Only If Telecommunication Use Code is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| MD | Modem | | | | | | | | | | | | | | | | | | | | | | | | |
| PH | Telephone | | | | | | | | | | | | | | | | | | | | | | | | |
| TDD | Telecommunications Device for the Deaf | | | | | | | | | | | | | | | | | | | | | | | | |
| TTY | Teletypewriter | | | | | | | | | | | | | | | | | | | | | | | | |
| X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| Area Code | NK1-5.6 | NM | 3 | RE | The area code of the next of kin/contact's phone number. | | | | | | | | | | | | | | | | | | | | |
| Phone Number | NK1-5.7 | NM | 9 | RE | The next of kin/contact's local telephone number. | | | | | | | | | | | | | | | | | | | | |

| Extension | NK1-5.8 | NM | 5 | RE | The next of kin/contact’s telephone extension. | | | | | | | | | | | | | | | | | | |
|------------------------------|--------------|-----|-----|----|---|-------------------|-------------|---|-------------------|---|----------|---|----------------|---|-------------------|---|-------------|---|-------|---|--------------|---|---------|
| Additional Notes Text | NK1-5.9 | ST | 199 | RE | Any additional notes related to phone number may be added in this field. | | | | | | | | | | | | | | | | | | |
| Unformatted Telephone Number | NK1-5.12 | ST | | RE | Next of kin’s unformatted telephone number. | | | | | | | | | | | | | | | | | | |
| Contact Role | NK1-7 | CWE | | CE | The contact role of the next of kin named in NK1-2, if available. | | | | | | | | | | | | | | | | | | |
| Identifier | NK1-7.1 | ID | | RE | Defines the contact role of the person named in NK1-2. Expecting code value only. | | | | | | | | | | | | | | | | | | |
| | | | | | Valid values include (excerpt of Table HL70131): | | | | | | | | | | | | | | | | | | |
| | | | | | <table><tr><th>Value</th><th>Description</th></tr><tr><td>C</td><td>Emergency Contact</td></tr><tr><td>E</td><td>Employer</td></tr><tr><td>F</td><td>Federal Agency</td></tr><tr><td>I</td><td>Insurance Company</td></tr><tr><td>N</td><td>Next of kin</td></tr><tr><td>O</td><td>Other</td></tr><tr><td>S</td><td>State Agency</td></tr><tr><td>U</td><td>Unknown</td></tr></table> | Value | Description | C | Emergency Contact | E | Employer | F | Federal Agency | I | Insurance Company | N | Next of kin | O | Other | S | State Agency | U | Unknown |
| | | | | | Value | Description | | | | | | | | | | | | | | | | | |
| | | | | | C | Emergency Contact | | | | | | | | | | | | | | | | | |
| | | | | | E | Employer | | | | | | | | | | | | | | | | | |
| | | | | | F | Federal Agency | | | | | | | | | | | | | | | | | |
| | | | | | I | Insurance Company | | | | | | | | | | | | | | | | | |
| | | | | | N | Next of kin | | | | | | | | | | | | | | | | | |
| | | | | | O | Other | | | | | | | | | | | | | | | | | |
| S | State Agency | | | | | | | | | | | | | | | | | | | | | | |
| U | Unknown | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | |
| Text | NK1-7.2 | ST | | CE | The standardized text description of the contact role code in NK1-7.1. | | | | | | | | | | | | | | | | | | |
| Name of Coding System | NK1-7.3 | ID | | CE | Literal value: “HL70131”. This indicates the coding system used for contact role in NK1-7.1. | | | | | | | | | | | | | | | | | | |
| Organization Name | NK1-13 | ST | | RE | If next of kin or associated party is an organization use this field, otherwise, use field NK1-2. | | | | | | | | | | | | | | | | | | |
| Contact Person’s Name | NK1-30 | XPN | 48 | RE | The name of the contact person at the organization named in NK1-13. | | | | | | | | | | | | | | | | | | |

| | | | | | |
|-----------------------------------|-----------|-----|-----|----|--|
| Last Name | NK1-30.1 | FN | | RE | The contact person's family name/surname. |
| First Name | NK1-30.2 | ST | | RE | The contact person's given name. |
| Middle Name/Initials | NK1-30.3 | ST | | RE | The contact person's middle initial or middle name. |
| Suffix | NK1-30.4 | ST | | RE | The contact person's suffix (e.g., Jr or III). |
| Contact Person's Telephone Number | NK1-31 | XTN | 40 | RE | Phone number of the contact person for the responsible organization. |
| Telecom Use Code | NK1-31.2 | ID | 3 | RE | Defines the type of phone number provided in NK1-31. VDH prefers to receive the value for work number ("WPN"). Valid values are found in table HL70201. |
| Telecom Equipment Type | NK1-31.3 | ID | 8 | RE | Defines the type of technology/equipment for the phone number provided in NK1-31. VDH prefers to receive the value for telephone ("PH") or cellular phone ("CP"). Valid values are found in table HL70202. |
| Area Code | NK1-31.6 | NM | | RE | The area code of the contact person's phone number. |
| Phone Number | NK1-31.7 | NM | | RE | The contact person's local telephone number. |
| Extension | NK1-31.8 | NM | | RE | The contact person's local telephone extension. |
| Unformatted Telephone Number | NK1-31.12 | ST | | RE | The contact person's unformatted telephone number. |
| Contact Person's Address | NK1-32 | XAD | 106 | RE | The address of the contact person at the organization named in NK1-13. |
| Street Address Line 1 | NK1-32.1 | ST | | RE | The contact person's street address. |
| Street Address Line 2 | NK1-32.2 | ST | | RE | Other designation for the contact person's street address. |

| | | | | | |
|--------------------|----------|----|--|----|--|
| City | NK1-32.3 | ST | | RE | The city of the contact person's address. |
| State | NK1-32.4 | ST | | RE | The state of the contact person's address. |
| Zip or Postal Code | NK1-32.5 | ST | | RE | The zip code of the contact person's address. |
| Country | NK1-32.6 | ID | | RE | Expecting "USA". This field contains the country code where the addressee is located. Refer to Table HI70399 - Country Code for valid 3-character codes as defined by ISO 3166-1. If the field is not valued, then "USA" is assumed. |

| PATIENT VISIT INFORMATION SEGMENT (PV1) | | | | | | |
|---|------------|----|--------|-----|--|-------------|
| The patient visit information (PV1) segment contains basic inpatient or outpatient information. | | | | | | |
| Field Name | Seq | DT | Length | Use | Notes/Value Set | |
| Set ID – PV1 | PV1-1 | SI | 1 | R | Literal Value: “1”. | |
| Patient Class | PV1-2 | IS | 20 | R | A gross identification of the classification of patient's visit. Expecting code value only. | |
| | | | | | Valid values include (excerpt of Table HL70004): | |
| | | | | | Value | Description |
| | | | | | E | Emergency |
| | | | | | I | Inpatient |
| O | Outpatient | | | | | |
| Assigned Patient Location | PV1-3 | PL | | C | Required if PV1-2 is "inpatient". This field identifies the current location of the patient. | |
| Point of Care | PV1-3.1 | IS | | O | For "inpatient", this could be a unit within the hospital. | |
| Room | PV1-3.2 | IS | | O | The room number for the patient, if an "inpatient". | |

| | | | | | | | | | | | | | | | | | | | |
|----------------------|--|-----|----|----|---|-------|-------------|---|----------|---|-----------|---|--------------------|---|--|---|---------|---|--------|
| Bed | PV1-3.3 | IS | | O | This field identifies the bed if there is more than one bed in a room. | | | | | | | | | | | | | | |
| Facility | PV1-3.4 | HD | | O | This field identifies the name of the facility where the order was originally placed by the provider. The ordering facility is defined as the facility in which the patient was examined and the order was initiated. | | | | | | | | | | | | | | |
| Namespace ID | PV1-3.4.1 | IS | | O | Name of the facility where the patient was seen. | | | | | | | | | | | | | | |
| Universal ID | PV1-3.4.2 | ST | | O | An identifier for the facility named in PV1-3.4.1. | | | | | | | | | | | | | | |
| Universal ID Type | PV1-3.4.3 | ID | | O | Expecting the type of identifier used in PV1-3.4.2. | | | | | | | | | | | | | | |
| Admission Type | PV1-4 | IS | 20 | O | <div>Required if PV1-2 is "inpatient". Expecting code value only.</div> <div>Valid values include (excerpt of Table HL70007):</div> <table><tr><td>Value</td><td>Description</td></tr><tr><td>C</td><td>Elective</td></tr><tr><td>E</td><td>Emergency</td></tr><tr><td>L</td><td>Labor and Delivery</td></tr><tr><td>N</td><td>Newborn (Birth in healthcare facility)</td></tr><tr><td>R</td><td>Routine</td></tr><tr><td>U</td><td>Urgent</td></tr></table> | Value | Description | C | Elective | E | Emergency | L | Labor and Delivery | N | Newborn (Birth in healthcare facility) | R | Routine | U | Urgent |
| Value | Description | | | | | | | | | | | | | | | | | | |
| C | Elective | | | | | | | | | | | | | | | | | | |
| E | Emergency | | | | | | | | | | | | | | | | | | |
| L | Labor and Delivery | | | | | | | | | | | | | | | | | | |
| N | Newborn (Birth in healthcare facility) | | | | | | | | | | | | | | | | | | |
| R | Routine | | | | | | | | | | | | | | | | | | |
| U | Urgent | | | | | | | | | | | | | | | | | | |
| Attending Doctor | PV1-7 | XPN | 48 | RE | Attending Doctor | | | | | | | | | | | | | | |
| Last Name | PV1-7.2 | FN | | RE | The attending doctor's family name/surname. | | | | | | | | | | | | | | |
| First Name | PV1-7.3 | ST | | RE | The attending doctor's given name. | | | | | | | | | | | | | | |
| Middle Name/Initials | PV1-7.4 | ST | | RE | The attending doctor's middle initial or middle name. | | | | | | | | | | | | | | |
| Suffix | PV1-7.5 | ST | | RE | The attending doctor's suffix (e.g., JR or III). | | | | | | | | | | | | | | |

| COMMON ORDER SEGMENT (ORC) The common order (ORC) segment provides basic information about the ordered test (e.g., identifiers for the order, who placed the order, when it was placed, etc.). | | | | | |
|---|---------|----|--------|-----|--|
| Field Name | Seq | DT | Length | Use | Notes/Value Set |
| Order Control | ORC-1 | ID | 2 | R | Determines the function of the order segment. Literal value: "RE". |
| Placer Order Number | ORC-2 | EI | 22 | CE | The order number of the entity that placed the order. If ORC-2 (Placer Order Number) is populated then this field must contain the same value as OBR-2. |
| Order Number | ORC-2.1 | ST | 199 | R | The placer order number is expected to be unique within the placer's organization. If order numbers are ever reused, a date-stamp may need to be added to the end of the number to guarantee uniqueness. |
| Assigning Authority Name | ORC-2.2 | IS | 20 | RE | The name of the assigning authority that assigned the placer order number. |
| Assigning Authority ID | ORC-2.3 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. |
| Assigning Authority ID Type | ORC-2.4 | ID | 6 | R | Expecting "CLIA" if a CLIA number is used in ORC-2.3, "NPI" if an NPI is used, "ISO" if an OID is used, or "ID" if an alternate identifier is used. |
| Filler Order Number | ORC-3 | EI | 22 | R | The order number of the entity that carries out the order. This field should contain the same value as OBR-3. |
| Order Number | ORC-3.1 | ST | 199 | R | The filler order number is expected to be unique within the filler's organization. If order numbers are ever reused, a date stamp may need to be added to the end of the number to guarantee uniqueness. |
| Assigning Authority Name | ORC-3.2 | IS | 20 | RE | The name of the assigning authority that assigned the filler order number. |
| Assigning Authority ID | ORC-3.3 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. |

| | | | | | |
|-----------------------------|----------|-----|-----|----|--|
| Assigning Authority ID Type | ORC-3.4 | ID | 6 | R | Expecting “CLIA” if a CLIA number is used in ORC-3.3, “NPI” if an NPI is used, “ISO” if an OID is used, or “ID” if an alternate identifier is used. |
| Placer Group Number | ORC-4 | CE | 22 | RE | Used to identify a group of orders. In a laboratory setting, this is commonly referred to as a “requisition number”. |
| Order Number | ORC-4.1 | ST | 199 | R | The placer group order number is expected to be unique within the placer’s organization. If order numbers are ever reused, a date stamp may need to be added to the end of the number to guarantee uniqueness. |
| Assigning Authority Name | ORC-4.2 | IS | 20 | RE | The name of the assigning authority that assigned the placer group order number. |
| Assigning Authority ID | ORC-4.3 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. |
| Assigning Authority ID Type | ORC-4.4 | ID | 6 | R | Expecting “CLIA” if a CLIA number is used in ORC-4.3, “NPI” if an NPI is used, “ISO” if an OID is used, or “ID” if an alternate identifier is used. |
| Ordering Provider | ORC-12 | XCN | 120 | CE | This field identifies the provider who ordered the test. If OBR-16 is populated, this field will contain the same values. |
| ID Number | ORC-12.1 | ST | | RE | The ordering provider’s ID number. The National Provider Identifier (NPI) is recommended. |
| Last Name | ORC-12.2 | FN | | RE | The ordering provider’s family name/surname. |
| First Name | ORC-12.3 | ST | | RE | The ordering provider’s given name. |
| Middle Name/Initials | ORC-12.4 | ST | | RE | The ordering provider’s middle initial or middle name. |
| Suffix | ORC-12.5 | ST | | RE | The ordering provider’s suffix (e.g., JR or III). |
| Prefix | ORC-12.6 | ST | | RE | The ordering provider’s prefix (e.g., DR). |

| | | | | | |
|-----------------------------|-------------|-----|-----|----|---|
| Assigning Authority | ORC-12.9 | HD | 227 | CE | Identifies the system, application, or organization that assigned the ordering provider ID in ORC-12.1. |
| Assigning Authority Name | ORC-12.9.1 | IS | 20 | RE | Expecting "CMS" if an NPI is used in ORC-12.1. If another type of identifier is used in ORC-12.1, expecting the name of the assigning authority for this identifier. |
| Assigning Authority ID | ORC-12.9.2 | ST | 199 | R | Expecting the CMS OID "2.16.840.1.113883.3.249" if an NPI is used in ORC-12.1. If another identifier is used in ORC-12.1, expecting the CLIA number, NPI, OID, or other ID for the assigning authority. |
| Assigning Authority ID Type | ORC-12.9.3 | ID | 6 | R | Expecting "CLIA" if a CLIA number is used in ORC-12.9.2, "NPI" if an NPI is used, "ISO" if an OID is used, or "ID" if an alternate identifier is used. |
| Name Type Code | ORC-12.10 | ID | 1 | RE | Defines the type of name in ORC-12. Use of legal name ("L") is expected by VDH. If empty, legal name is assumed. See Table HL70200 – Name Type for other valid values. |
| Identifier Type Code | ORC-12.13 | IS | | CE | Component identifies the type of ID in ORC-12.1. Expecting "NPI" (if an NPI is used in ORC-12.1). See Table HL70203 – Identifier Type Code for other valid values. |
| Assigning Facility | ORC-12.14 | HD | 227 | RE | Identifies the facility that assigned the ordering provider ID in ORC-12.1. Note that if an NPI is used in ORC-12.1, there is no assigning facility and this field will be empty. |
| Assigning Facility Name | ORC-12.14.1 | IS | 20 | RE | The name of the facility that assigned the ordering provider ID. This field will be empty if an NPI is used in ORC-12.1. |
| Assigning Facility ID | ORC-12.14.2 | ST | 199 | R | The CLIA number, NPI, OID, or other ID for the assigning facility. This field will be empty if an NPI is used in ORC-12.1. |
| Assigning Facility ID Type | ORC-12.14.3 | ID | 6 | R | Expecting "CLIA" if a CLIA number is used in ORC-12.14.2, "NPI" if an NPI is used, "ISO" if an OID is used, or "ID" if an alternate identifier is used. |
| Order Callback Phone Number | ORC-14 | XTN | 250 | RE | The ordering provider's phone number. If OBR-17 Callback Phone Number is populated, this field will contain the same value. Although this field is classified as "RE", it is important for public health follow-up and the information should be provided, if possible. |

| Telecom Use Code | ORC-14.2 | ID | | RE | <div>Defines the type of phone number in ORC-14. VDH prefers to receive the work number ("WPN"). Expecting code value only.</div> <div>Valid values are (Table HL70201):</div> <table><tr><th>Value</th><th>Description</th></tr><tr><td>ASN</td><td>Answering Service Number</td></tr><tr><td>BPN</td><td>Beeper Number</td></tr><tr><td>EMR</td><td>Emergency Number</td></tr><tr><td>NET</td><td>Network (email) Address</td></tr><tr><td>ORN</td><td>Other Residence Number</td></tr><tr><td>PRN</td><td>Primary Residence Number</td></tr><tr><td>VHN</td><td>Vacation Home Number</td></tr><tr><td>WPN</td><td>Work Number</td></tr></table> | Value | Description | ASN | Answering Service Number | BPN | Beeper Number | EMR | Emergency Number | NET | Network (email) Address | ORN | Other Residence Number | PRN | Primary Residence Number | VHN | Vacation Home Number | WPN | Work Number | | |
|------------------------|--|----|---|----|---|--------|-------------|-----|--------------------------|-----|----------------|-----|------------------|----------|---|-----|------------------------|-----|--------------------------|-----|--|-----|----------------|-------|--|
| Value | Description | | | | | | | | | | | | | | | | | | | | | | | | |
| ASN | Answering Service Number | | | | | | | | | | | | | | | | | | | | | | | | |
| BPN | Beeper Number | | | | | | | | | | | | | | | | | | | | | | | | |
| EMR | Emergency Number | | | | | | | | | | | | | | | | | | | | | | | | |
| NET | Network (email) Address | | | | | | | | | | | | | | | | | | | | | | | | |
| ORN | Other Residence Number | | | | | | | | | | | | | | | | | | | | | | | | |
| PRN | Primary Residence Number | | | | | | | | | | | | | | | | | | | | | | | | |
| VHN | Vacation Home Number | | | | | | | | | | | | | | | | | | | | | | | | |
| WPN | Work Number | | | | | | | | | | | | | | | | | | | | | | | | |
| Telecom Equipment Type | ORC-14.3 | ID | | RE | <div>Defines the type of technology/equipment for the phone number in ORC-14. VDH prefers to receive the telephone ("PH"). Expecting code value only.</div> <div>Valid values are (Table HL70202):</div> <table><tr><th>Values</th><th>Description</th></tr><tr><td>BP</td><td>Beeper</td></tr><tr><td>CP</td><td>Cellular Phone</td></tr><tr><td>FX</td><td>Fax</td></tr><tr><td>Internet</td><td>Internet Address: Use Only If Telecommunication Use Code Is NET</td></tr><tr><td>MD</td><td>Modem</td></tr><tr><td>PH</td><td>Telephone</td></tr><tr><td>TDD</td><td>Telecommunications Device for the Deaf</td></tr><tr><td>TTY</td><td>Teletypewriter</td></tr><tr><td>X.400</td><td>X.400 email address: Use Only If Telecommunication Use Code Is NET</td></tr></table> | Values | Description | BP | Beeper | CP | Cellular Phone | FX | Fax | Internet | Internet Address: Use Only If Telecommunication Use Code Is NET | MD | Modem | PH | Telephone | TDD | Telecommunications Device for the Deaf | TTY | Teletypewriter | X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET |
| Values | Description | | | | | | | | | | | | | | | | | | | | | | | | |
| BP | Beeper | | | | | | | | | | | | | | | | | | | | | | | | |
| CP | Cellular Phone | | | | | | | | | | | | | | | | | | | | | | | | |
| FX | Fax | | | | | | | | | | | | | | | | | | | | | | | | |
| Internet | Internet Address: Use Only If Telecommunication Use Code Is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| MD | Modem | | | | | | | | | | | | | | | | | | | | | | | | |
| PH | Telephone | | | | | | | | | | | | | | | | | | | | | | | | |
| TDD | Telecommunications Device for the Deaf | | | | | | | | | | | | | | | | | | | | | | | | |
| TTY | Teletypewriter | | | | | | | | | | | | | | | | | | | | | | | | |
| X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| Area Code | ORC-14.6 | NM | 3 | CE | The area code of the ordering provider's telephone number. | | | | | | | | | | | | | | | | | | | | |
| Phone Number | ORC-14.7 | NM | 7 | CE | The ordering provider's local telephone number. | | | | | | | | | | | | | | | | | | | | |

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|------------------------------|------------|-----|-----|----|---|
| Extension | ORC-14.8 | NM | | CE | The ordering provider's local telephone number extension. |
| Unformatted Telephone Number | ORC-14.12 | ST | | RE | The ordering provider's unformatted telephone number. |
| Entering Organization | ORC-17 | CWE | | RE | This field identifies the organization that the enterer belonged to at the time he/she enters/maintains the order; such as medical group or department. |
| Identifier | ORC-17.1 | ST | | RE | The entering organization identifier. |
| Text | ORC-17.2 | ST | | RE | The name of the entering organization. |
| Name of Coding System | ORC-17.3 | ST | | RE | This indicates the name of the coding system used in ORC-17.1. |
| Ordering Facility Name | ORC-21 | XON | 60 | R | This field identifies the name of the facility where the order was originally placed by the provider. The ordering facility is defined as the facility in which the patient was examined and the order was initiated. |
| Facility Name | ORC-21.1 | ST | | CE | This field identifies the name of the facility where the order was originally placed by the provider. The ordering facility is defined as the facility in which the patient was examined and the order was initiated. |
| Facility Name Type Code | ORC-21.2 | ID | | RE | Defines the type of name in ORC-21.1. Use of legal name ("L") is expected by VDH. If empty, legal name is assumed. See Table HL70204 – Organizational Name Type for other valid values. |
| Assigning Authority | ORC-21.6 | HD | 227 | CE | Identifies the system, application, or organization that assigned the ordering facility ID in ORC-21.10. |
| Assigning Authority Name | ORC-21.6.1 | IS | 20 | RE | The name of the assigning authority that assigned the facility ID in ORC-21.10. |
| Assigning Authority ID | ORC-21.6.2 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. |
| Assigning Authority ID Type | ORC-21.6.3 | ID | 6 | R | Expecting "CLIA" if a CLIA number is used in ORC-21.6.2, "NPI" if an NPI is used, "ISO" if an OID is used, or "ID" if an alternate identifier is used. |

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|--------------------------------|-----------|-----|-----|----|--|
| Identifier Type Code | ORC-21.7 | ID | | CE | Expecting “XX” when ORC-21.10 is populated with the ordering facility identifier. |
| Organization Identifier | ORC-21.10 | ST | | RE | The organization identifier used to identify the ordering facility named in ORC-21.1. A CLIA, NPI, OID, or other ID is expected. CLIA is preferred when appropriate. |
| Ordering Facility Address | ORC-22 | XAD | 106 | R | This field identifies the ordering facility address. |
| Street Address Line 1 | ORC-22.1 | ST | 100 | RE | The ordering facility’s street/mailling address (e.g., “123 Main St.”). If the ordering facility address has a suite number, please include it in Street Address Line 1. |
| Street Address Line 2 | ORC-22.2 | ST | 100 | RE | |
| City | ORC-22.3 | ST | 50 | RE | The city in which the ordering facility is located. |
| State | ORC-22.4 | ST | 50 | RE | The state in which the ordering facility is located. Use the U.S. Postal Service 2-character state abbreviation (e.g., VA). |
| ZIP or Postal Code | ORC-22.5 | ST | 12 | RE | The zip code of the ordering facility’s address. Use a valid 5-digit zip code. |
| Country | ORC-22.6 | ID | 3 | RE | Expecting “USA”. This field contains the country code where the addressee is located. Refer to Table HL70399 – Country Code for valid 3-character codes as defined by ISO 3166-1. If the field is not valued, then “USA” is assumed. |
| Address Type | ORC-22.7 | ID | 3 | RE | Defines the type of address in ORC-22. Type code “B” (Business) from Table HL70190 – Address Type is expected. If ordering facility’s address is submitted, this field is required. |
| County Code | ORC-22.9 | IS | 20 | RE | Submit the FIPS code for the ordering facility address. If address is in an independent city in Virginia, submit the city FIPS code. Use the two-digit VA state code (“51”) followed by the three-digit county/city-specific code. |
| Ordering Facility Phone Number | ORC-23 | XTN | 48 | R | The ordering facility’s phone number. |
| Telecom Use Code | ORC-23.2 | ID | | RE | Defines the type of phone number in ORC-23. VDH prefers to receive the work number (“WPN”). See Table HL70201 – Telecommunication Use Code for other valid values. |

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| Telecom Equipment Type | ORC-23.3 | ID | | RE | Defines the type of technology/equipment for the phone number in ORC-23. VDH prefers to receive the telephone ("PH"). See Table HL70202 – Telecommunication Equipment Type for other valid values. |
| Area Code | ORC-23.6 | NM | 3 | CE | The area code of the ordering facility's telephone number. |
| Phone Number | ORC-23.7 | NM | 7 | CE | The ordering facility's local telephone number. |
| Extension | ORC-23.8 | NM | | CE | The ordering facility's telephone extension. |
| Unformatted Telephone Number | ORC-23.12 | ST | | RE | The ordering facility's unformatted telephone number. |
| Ordering Provider Address | ORC-24 | XAD | 106 | RE | This field identifies the ordering provider's address. |
| Street Address Line 1 | ORC-24.1 | ST | 100 | RE | The ordering provider's street address (e.g., "123 Main St."). If the ordering provider's address has a suite number, please include it in Street Address Line 1. |
| Street Address Line 2 | ORC-24.2 | ST | 100 | RE | |
| City | ORC-24.3 | ST | 50 | RE | The city in which the ordering provider is located. |
| State | ORC-24.4 | ST | 50 | RE | The state in which the ordering provider is located. Use the U.S. Postal Service 2-character state abbreviation (e.g., VA). |
| ZIP or Postal Code | ORC-24.5 | ST | 12 | RE | The zip code of the ordering provider's address. Use a valid 5-digit zip code. |
| Country | ORC-24.6 | ID | 3 | RE | Expecting "USA". This field contains the country code where the addressee is located. Refer to Table HL70399 – Country Code for valid 3-character codes as defined by ISO 3166-1. If the field is not valued, then "USA" is assumed. |
| Address Type | ORC-24.7 | ID | 3 | RE | Defines the type of address in ORC-24. Type code "B" (Business) from Table HL70190 – Address Type is expected. If ordering provider address is submitted, this field is required. |

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|-------------|----------|----|----|----|--|
| County Code | ORC-24.9 | IS | 20 | RE | Submit the FIPS code for the ordering provider address. If address is in an independent city in Virginia, submit the city FIPS code. Use the two-digit VA state code ("51") followed by the three-digit county/city-specific code. |
|-------------|----------|----|----|----|--|

| OBSERVATION REQUEST SEGMENT (OBR) | | | | | |
|--|---------|----|--------|-----|--|
| The observation request (OBR) segment provides information about the type of test performed and relates the information to the order for the test. A separate OBR is needed for each test ordered. | | | | | |
| Field Name | Seq | DT | Length | Use | Notes/Value Set |
| Set ID – OBR | OBR-1 | SI | 1 | R | For the first OBR segment, the Set ID shall be "1", for a second OBR segment, the Set ID shall be "2", etc. Subsequent OBR segments should increment the Set ID field. |
| Placer Order Number | OBR-2 | EI | 22 | RE | The order number of the entity that placed the order. If OBR-2 (Placer Order Number) is populated then this field must contain the same value as ORC-2. |
| Order Number | OBR-2.1 | ST | 199 | R | The placer order number is expected to be unique within the placer's organization. If order numbers are ever reused, a date stamp may need to be added to the end of the number to guarantee uniqueness. |
| Assigning Authority Name | OBR-2.2 | IS | 20 | RE | The name of the assigning authority that assigned the placer order number. |
| Assigning Authority ID | OBR-2.3 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. |
| Assigning Authority ID Type | OBR-2.4 | ID | 6 | R | Expecting "CLIA" if a CLIA number is used in ORC-2.3, "NPI" if an NPI is used, "ISO" if an OID is used, or "ID" if an alternate identifier is used. |
| Filler Order Number | OBR-3 | EI | 22 | R | The order number of the entity that carries out the order. This field should contain the same value as ORC-3. |

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| Order Number | OBR-3.1 | ST | 199 | R | The filler order number is expected to be unique within the filler's organization. If order numbers are ever reused, a date stamp may need to be added to the end of the number to guarantee uniqueness. |
| Assigning Authority Name | OBR-3.2 | IS | 20 | RE | The name of the assigning authority that assigned the filler order number. |
| Assigning Authority ID | OBR-3.3 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. |
| Assigning Authority ID Type | OBR-3.4 | ID | 6 | R | Expecting "CLIA" if a CLIA number is used in OBR-3.3, "NPI" if an NPI is used, "ISO" if an OID is used, or "ID" if an alternate identifier is used. |
| Universal Service ID | OBR-4 | CWE | 22 | R | This field contains a unique identifier for the requested observation/test. For lab orders in general, LOINC <i>should</i> be used as the standard coding system in OBR-4.1 to OBR-4.3, if an appropriate LOINC exists. A local code and local test name may also be sent in OBR-4.4 to OBR-4.6. When a valid LOINC does not exist, the local code may be the only code sent. |
| Code (LOINC) | OBR-4.1 | ST | 20 | RE | Expecting a LOINC for the ordered observation/test, if an appropriate LOINC exists. |
| Description (LOINC) | OBR-4.2 | ST | 199 | RE | Expecting the text description for the LOINC in OBR-4.1. |
| ID Type (LOINC) | OBR-4.3 | ST | 12 | RE | Expecting "LN". |
| Code (Local) | OBR-4.4 | ST | 20 | RE | Alternate local code the laboratory uses to uniquely identify the ordered observation/ test. |
| Description (Local) | OBR-4.5 | ST | 199 | RE | The text description for the local code in OBR-4.4. |
| ID Type (Local) | OBR-4.6 | ST | 12 | RE | Identifies the type of code in OBR-4.4. For local code sets, expecting "L" OR "99ZZZ", where "ZZZ" represents the alphanumeric characters used to identify the local coding system. |
| Coding System Version ID | OBR-4.7 | ST | 10 | RE | Version of the LOINC coding system used in OBR-4.1. |

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| Alternate Coding System Version ID | OBR-4.8 | ST | 10 | RE | Version of the laboratory's internal coding system used in OBR-4.4. |
| Observation Start Date/Time | OBR-7 | TS | 26 | R | For specimen-based observations, the start date/time of specimen collection. This field must contain the same value as OBX-14 and SPM-17.1. Format: YYYYMMDD[HHMM[SS]] |
| Observation End Date/Time | OBR-8 | TS | 26 | CE | For specimen-based observations (when the specimen was collected over a period of time) the end date/time of specimen collection. This field must contain the same value as SPM-17.2. Format: YYYYMMDD[HHMM[SS]] |
| Relevant Clinical Information | OBR-13 | ST | 300 | RE | This field contains additional clinical information about the patient or specimen. This field is used to report the suspected diagnosis and clinical findings on requests for interpreted diagnostic studies. VDH generally does not expect to receive information in this field. If there is important clinical information, please send it in an NTE segment. |
| Ordering Provider | OBR-16 | XCN | 250 | RE | This field identifies the provider who ordered the test. If ORC-12 is populated, this field will contain the same values. |
| ID number | OBR-16.1 | ST | | RE | The ordering provider's ID number. The National Provider Identifier (NPI) is recommended. |
| Last Name | OBR-16.2 | FN | | RE | The ordering provider's family name/surname. |
| First Name | OBR-16.3 | ST | | RE | The ordering provider's given name. |
| Middle Name/Initials | OBR-16.4 | ST | | RE | The ordering provider's middle initial or middle name. |
| Suffix | OBR-16.5 | ST | | RE | The ordering provider's suffix (e.g., JR or III). |
| Prefix | OBR-16.6 | ST | | RE | The ordering provider's prefix (e.g., DR). |
| Assigning Authority | OBR-16.9 | HD | 227 | CE | Identifies the system, application, or organization that assigned the ordering provider ID in OBR-16.1. |
| Assigning Authority Name | OBR-16.9.1 | IS | 20 | RE | Expecting "CMS" if an NPI is used in OBR-16.1. If another type of identifier is used in OBR-16.1, expecting the name of the assigning authority for this identifier. |

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| Assigning Authority ID | OBR-16.9.2 | ST | 199 | R | Expecting the CMS OID “2.16.840.1.113883.3.249” if an NPI is used in OBR-16.1. If another identifier is used in OBR-16.1, expecting the CLIA number, NPI, OID, or other ID for the assigning authority. |
| Assigning Authority ID Type | OBR-16.9.3 | ID | 6 | R | Expecting “CLIA” if a CLIA number is used in OBR-16.9.2, “NPI” if an NPI is used, “ISO” if an OID is used, or “ID” if an alternate identifier is used. |
| Name Type Code | OBR-16.10 | ID | | RE | Defines the type of name in OBR-16. Use of legal name (“L”) is expected by VDH. If empty, legal name is assumed. See Table HL70200 – Name Type for other valid values. |
| Identifier Type Code | OBR-16.13 | IS | | CE | Component identifies the type of ID in OBR-16.1. Expecting “NPI” (if an NPI is used in OBR-16.1). See Table HL70203 – Identifier Type Code for other valid values. |
| Assigning Facility | OBR-16.14 | HD | 227 | RE | Identifies the facility that assigned the ordering provider ID in OBR-16.1. Note that if an NPI is used in OBR-16.1, there is no assigning facility and this field will be empty. |
| Assigning Facility Name | OBR-16.14.1 | IS | 20 | RE | The name of the facility that assigned the ordering provider ID. This field will be empty if an NPI is used in OBR-16.1. |
| Assigning Facility ID | OBR-16.14.2 | ST | 199 | R | The CLIA number, NPI, OID, or other ID for the assigning facility. This field will be empty if an NPI is used in OBR-16.1. |
| Assigning Facility ID Type | OBR-16.14.3 | ID | 6 | R | Expecting “CLIA” if a CLIA number is used in OBR-16.14.2, “NPI” if an NPI is used, “ISO” if an OID is used, or “ID” if an alternate identifier is used. |
| Order Callback Phone Number | OBR-17 | XTN | 250 | RE | The ordering provider’s phone number. Although this field is classified as “RE” it is important for public health follow-up and the information should be provided, if possible. |

| Telecom Use Code | OBR-17.2 | ID | | RE | <p>Defines the type of phone number in OBR-17. VDH prefers to receive the work number (“WPN”). Expecting code value only.</p> <p>Valid values are (Table HL70201):</p> <table><tr><th>Value</th><th>Description</th></tr><tr><td>ASN</td><td>Answering Service Number</td></tr><tr><td>BPN</td><td>Beeper Number</td></tr><tr><td>EMR</td><td>Emergency Number</td></tr><tr><td>NET</td><td>Network (email) Address</td></tr><tr><td>ORN</td><td>Other Residence Number</td></tr><tr><td>PRN</td><td>Primary Residence Number</td></tr><tr><td>VHN</td><td>Vacation Home Number</td></tr><tr><td>WPN</td><td>Work Number</td></tr></table> | Value | Description | ASN | Answering Service Number | BPN | Beeper Number | EMR | Emergency Number | NET | Network (email) Address | ORN | Other Residence Number | PRN | Primary Residence Number | VHN | Vacation Home Number | WPN | Work Number | | |
|------------------------|--|----|---|----|--|--------|-------------|-----|--------------------------|-----|----------------|-----|------------------|----------|---|-----|------------------------|-----|--------------------------|-----|--|-----|----------------|-------|--|
| Value | Description | | | | | | | | | | | | | | | | | | | | | | | | |
| ASN | Answering Service Number | | | | | | | | | | | | | | | | | | | | | | | | |
| BPN | Beeper Number | | | | | | | | | | | | | | | | | | | | | | | | |
| EMR | Emergency Number | | | | | | | | | | | | | | | | | | | | | | | | |
| NET | Network (email) Address | | | | | | | | | | | | | | | | | | | | | | | | |
| ORN | Other Residence Number | | | | | | | | | | | | | | | | | | | | | | | | |
| PRN | Primary Residence Number | | | | | | | | | | | | | | | | | | | | | | | | |
| VHN | Vacation Home Number | | | | | | | | | | | | | | | | | | | | | | | | |
| WPN | Work Number | | | | | | | | | | | | | | | | | | | | | | | | |
| Telecom Equipment Type | OBR-17.3 | ID | | RE | <p>Defines the type of technology/equipment for the phone number in OBR-17. VDH prefers to receive the telephone (“PH”). Expecting code values only.</p> <p>Valid values are (Table HL70202):</p> <table><tr><th>Values</th><th>Description</th></tr><tr><td>BP</td><td>Beeper</td></tr><tr><td>CP</td><td>Cellular Phone</td></tr><tr><td>FX</td><td>Fax</td></tr><tr><td>Internet</td><td>Internet Address: Use Only If Telecommunication Use Code Is NET</td></tr><tr><td>MD</td><td>Modem</td></tr><tr><td>PH</td><td>Telephone</td></tr><tr><td>TDD</td><td>Telecommunications Device for the Deaf</td></tr><tr><td>TTY</td><td>Teletypewriter</td></tr><tr><td>X.400</td><td>X.400 email address: Use Only If Telecommunication Use Code Is NET</td></tr></table> | Values | Description | BP | Beeper | CP | Cellular Phone | FX | Fax | Internet | Internet Address: Use Only If Telecommunication Use Code Is NET | MD | Modem | PH | Telephone | TDD | Telecommunications Device for the Deaf | TTY | Teletypewriter | X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET |
| Values | Description | | | | | | | | | | | | | | | | | | | | | | | | |
| BP | Beeper | | | | | | | | | | | | | | | | | | | | | | | | |
| CP | Cellular Phone | | | | | | | | | | | | | | | | | | | | | | | | |
| FX | Fax | | | | | | | | | | | | | | | | | | | | | | | | |
| Internet | Internet Address: Use Only If Telecommunication Use Code Is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| MD | Modem | | | | | | | | | | | | | | | | | | | | | | | | |
| PH | Telephone | | | | | | | | | | | | | | | | | | | | | | | | |
| TDD | Telecommunications Device for the Deaf | | | | | | | | | | | | | | | | | | | | | | | | |
| TTY | Teletypewriter | | | | | | | | | | | | | | | | | | | | | | | | |
| X.400 | X.400 email address: Use Only If Telecommunication Use Code Is NET | | | | | | | | | | | | | | | | | | | | | | | | |
| Area Code | OBR-17.6 | NM | 3 | CE | The area code of the ordering provider’s telephone number. | | | | | | | | | | | | | | | | | | | | |

| Phone Number | OBR-17.7 | NM | 7 | CE | The ordering provider’s local telephone number. | | | | | | | | |
|---------------------------------------|--|-----|-----|----|--|---------------------------------------|-------------|---|---------------------------------------|---|-----------------------|---|--|
| Extension | OBR-17.8 | NM | | CE | The ordering provider’s telephone extension. | | | | | | | | |
| Unformatted Telephone Number | OBR-17.12 | ST | | RE | The ordering provider's unformatted telephone number. | | | | | | | | |
| Results Rpt/Status Change – Date/Time | OBR-22 | TS | 26 | R | This field specifies the date/time the results were reported or status changed. Format: YYYYMMDD[HHMM[SS]] | | | | | | | | |
| Result Status | OBR-25 | ID | 1 | R | This field contains the status of the results for the order. Expecting code value only. | | | | | | | | |
| | | | | | Valid values include (excerpt of Table HL70123): | | | | | | | | |
| | | | | | <table><tr><th>Value</th><th>Description</th></tr><tr><td>A</td><td>Some, but not all, results available.</td></tr><tr><td>C</td><td>Correction to results</td></tr><tr><td>F</td><td>Final results; results stored and verified. Can only be changed with a corrected result.</td></tr></table> | Value | Description | A | Some, but not all, results available. | C | Correction to results | F | Final results; results stored and verified. Can only be changed with a corrected result. |
| | | | | | Value | Description | | | | | | | |
| | | | | | A | Some, but not all, results available. | | | | | | | |
| C | Correction to results | | | | | | | | | | | | |
| F | Final results; results stored and verified. Can only be changed with a corrected result. | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Parent Result | OBR-26 | PRL | 400 | CE | This field is only needed when a test must be linked to a “parent” test result. Together with OBR-29 (Parent), this field allows this result to be linked to a specific OBX segment associated with another OBR segment. | | | | | | | | |
| OBX-3 Observation Identifier | OBR-26.1 | CE | 483 | R | Must be the value from the parent OBX-3. | | | | | | | | |
| OBX-4 Sub-ID | OBR-26.2 | ST | 20 | RE | Must be the value from the parent OBX-4. | | | | | | | | |
| OBX-5 Observation Value | OBR-26.3 | TX | 250 | RE | Must be the value from the parent OBX-5.2 or OBX-5.5 or OBX-5.9 (in this priority order). | | | | | | | | |
| Parent | OBR-29 | EIP | 200 | CE | Only needed if you reference a parent result. Commonly used with microbiology messages to link a susceptibility result with the parent culture that identified the organism. | | | | | | | | |
| Placer Order Number | OBR-29.1 | EI | 427 | RE | The order number of the entity that placed the order. If OBR-2 (Placer Order Number) is populated then this field must contain the same value. | | | | | | | | |

| | | | | | |
|-----------------------------|------------|----|-----|----|--|
| Order Number | OBR-29.1.1 | ST | 199 | R | The placer order number from the parent OBR-2. |
| Assigning Authority Name | OBR-29.1.2 | IS | 20 | RE | The name of the assigning authority that assigned the placer order number. |
| Assigning Authority ID | OBR-29.1.3 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. |
| Assigning Authority ID Type | OBR-29.1.4 | ID | 6 | R | Expecting "CLIA" if a CLIA number is used in OBR-29.1.3, "NPI" if an NPI is used, "ISO" if an OID is used, or "ID" if an alternate identifier is used. |
| Filler Order Number | OBR-29.2 | EI | 427 | R | The order number of the entity that carries out the order. This field should contain the same value as OBR-3. |
| Order Number | OBR-29.2.1 | ST | 199 | R | The filler order number from the parent OBR-3. |
| Assigning Authority Name | OBR-29.2.2 | IS | 20 | RE | The name of the assigning authority that assigned the filler order number. |
| Assigning Authority ID | OBR-29.2.3 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. |
| Assigning Authority ID Type | OBR-29.2.4 | ID | 6 | R | Expecting "CLIA" if a CLIA number is used in OBR-29.2.3, "NPI" if an NPI is used, "ISO" if an OID is used, or "ID" if an alternate identifier is used. |
| Reason for Study | OBR-31 | ST | | RE | ICD-10 codes are expected. |
| Identifier | OBR-31.1 | ST | | RE | ICD-10 codes are expected to describe the reason for study. Expecting code value only. |
| Text | OBR-31.2 | ST | 100 | CE | The standardized text description that corresponds with the code in OBR-31.1. VDH data systems have a maximum text length of 100 characters in OBR-31.2. |
| Name of Coding System | OBR-31.3 | ST | | CE | Literal value "IC10" when ICD-10 codes are used in OBR-31.1. |

OBSERVATION/RESULT SEGMENT (OBX)

For laboratory testing, the observation/result (OBX) segment normally reports the results of a test performed on a specimen. Each OBX segment contains information regarding a single observation result including the test type, result, and time.

| Field Name | Seq | DT | Length | Use | Notes/Value Set |
|------------------------------------|---------|-----|--------|-----|---|
| Set ID – OBX | OBX-1 | SI | 4 | R | For the first OBX segment, under an OBR, the Set ID shall be “1”, for a second OBX segment under the same OBR, the Set ID shall be “2”, etc. Subsequent OBX segments should increment the Set ID field. |
| Value Type | OBX-2 | ID | 3 | RE | This field identifies the data type used in OBX-5. VDH requires the use of Coded with Exceptions (“CWE”) or Structured Numeric (“SN”) data types. See Table HL70125 – Value Type for reference. |
| Observation Identifier | OBX-3 | CWE | | R | This field contains a unique identifier for the observation/result. For observations in general, LOINC <i>must</i> be used as the standard coding system in OBX-3.1 to OBX-3.3. A local code and local observation name may also be sent in OBX-3.4 to OBX-3.6. When a valid LOINC does not exist, the local code may be the only code sent. |
| Code (LOINC) | OBX-3.1 | ST | 20 | R | Expecting a LOINC for the observation/result, if an appropriate LOINC exists. |
| Description (LOINC) | OBX-3.2 | ST | 199 | RE | Expecting the standardized text description for the LOINC in OBX-3.1. |
| ID Type (LOINC) | OBX-3.3 | ST | 12 | R | Literal value: “LN”, if OBX-3.1 and OBX-3.2 are populated. |
| Code (Local) | OBX-3.4 | ST | 20 | RE | Alternate local code the laboratory uses to uniquely identify the observation/result. |
| Description (Local) | OBX-3.5 | ST | 199 | CE | The text description for the local code in OBX-3.4. |
| ID Type (Local) | OBX-3.6 | ST | 12 | CE | Identifies the type of code in OBX-3.4. For local code sets, expecting “L” OR “99ZZZ”, where “ZZZ” represents the alphanumeric characters used to identify the local coding system. |
| Coding System Version ID | OBX-3.7 | ST | 10 | RE | Version of the LOINC coding system used in OBX-3.1. |
| Alternate Coding System Version ID | OBX-3.8 | ST | 10 | RE | Version of the laboratory’s internal coding system used in OBX-3.4. |

| | | | | | |
|---|---------|--------|-------|----|--|
| Observation Sub-ID | OBX-4 | ST | 20 | CE | This field is used to distinguish between multiple OBX segments (under the same parent OBR) with the same observation ID (OBX-3). |
| Observation Value | OBX-5 | Varies | 99999 | RE | <p>This field contains the results of the observation/test in OBX-3. The structure of OBX-5 is defined by OBX-2.</p> <p>If findings are quantitative or other numeric values, they should be presented as Structured Numeric (SN) data type. If findings are qualitative or other coded results, they should be presented as Coded with Exceptions (CWE) data type using SNOMED.</p> |
| CWE format for OBX-5 (5.1 to 5.9) | | | | | <p><i>CWE data type</i> – used to carry coded results including:</p> <ul style="list-style-type: none"> Organisms – <i>/17872004^Neisseria meningitidis^SCT/</i> Modifiers – <i>/260373001^Detected^SCT/</i> |
| Identifier (SNOMED) | OBX-5.1 | ST | 20 | R | Expecting a SNOMED code identifying the observation/result. |
| Text (SNOMED) | OBX-5.2 | ST | 199 | R | Expecting a text description for the SNOMED code in OBX-5.1. |
| Name of Coding System(SNOMED) | OBX-5.3 | ID | 12 | R | <p>Identifies the type of code in OBX-5.1.</p> <p>Literal value: “SCT”, if OBX-5.1 and OBX-5.2 are populated.</p> |
| Alternate Identifier (Local) | OBX-5.4 | ST | 20 | RE | Alternate local code the laboratory uses to uniquely identify the result. |
| Alternate Text (Local) | OBX-5.5 | ST | 199 | CE | The text description for the local code in OBX-5.4. |
| Name of Alternate Coding System (Local) | OBX-5.6 | ID | 12 | CE | <p>Identifies the type of code in OBX-5.4.</p> <p>For local code sets, expecting “L” OR “99ZZZ”, where “ZZZ” represents the alphanumeric characters used to identify the local coding system.</p> |
| Coding System Version ID | OBX-5.7 | ST | 10 | RE | Version of the SNOMED coding system used in OBX-5.1. |
| Alternate Coding System Version ID | OBX-5.8 | ST | 10 | RE | Version of the laboratory’s internal coding system used in OBX-5.4 |
| Original Text | OBX-5.9 | ST | 199 | RE | Expecting a text description of the result. If a valid SNOMED code and alternate identifier are not present, then this component is required. |

| | | | | | |
|------------------------------------|---------|-----|-----|----|--|
| SN format for OBX-5 (5.1 to 5.4) | | | | | <i>SN data type</i> – used to carry numeric result values including: <ul style="list-style-type: none"> Intervals – $^0 ^1$ (between 0 and 1) Ratios – $^1 ^2$ or $^1 ^2$ (ratio of 1 to 2) Inequalities – $<^10$ (less than 10) Categorical – 2^+ |
| Comparator | OBX-5.1 | ST | 2 | RE | Must be one of ">" or "<" or ">=" or "<=" or "=" or "<>". This component defaults to "=" if empty. |
| Num1 | OBX-5.2 | NM | | RE | Expecting a numeric value. |
| Separator/Suffix | OBX-5.3 | ST | 1 | RE | Must be one of "-" or "+" or "/" or "." or ":". |
| Num2 | OBX-5.4 | NM | | RE | Expecting a numeric value. |
| Units | OBX-6 | CWE | 250 | CE | This field contains the units of measure for numeric values in OBX-5. If OBX-2 = "SN" then this field is required. |
| Identifier | OBX-6.1 | ST | 20 | RE | Expecting a Unified Code for Units of Measure (UCUM). Visit HL7 for commonly used UCUM codes. |
| Text | OBX-6.2 | ST | 199 | CE | Expecting the standardized text description for the UCUM code in OBX-6.1. |
| Name of Coding System | OBX-6.3 | ID | 20 | CE | Identifies the type of code in OBX-6.1. Literal value: "UCUM", if OBX-6.1 and OBX-6.2 are populated. |
| Alternate Identifier | OBX-6.4 | ST | 20 | RE | An alternate code the laboratory uses to uniquely identify the unit of measure. |
| Alternate Text | OBX-6.5 | ST | 199 | CE | Expecting a text description for the local code in OBX-6.4. |
| Name of Alternate Coding System | OBX-6.6 | ID | 20 | CE | Identifies the type of code in OBX-6.4. For local code sets, expecting "L" OR "99ZZZ", where "ZZZ" represents the alphanumeric characters used to identify the local coding system. |
| Coding System Version ID | OBX-6.7 | ST | 10 | RE | Version of the UCUM coding system used in OBX-6.1. |
| Alternate Coding System Version ID | OBX-6.8 | ST | 10 | RE | Version of the laboratory's internal coding system used in OBX-6.4. |

| | | | | | | |
|------------------------------------|--------------------------|-----|----|----|--|-------------------|
| Reference Range | OBX-7 | ST | 60 | RE | Interpretation range that applies to the value reported in OBX-5. It should provide enough information to understand the abnormal flags reported in OBX-8. | |
| Abnormal Flags | OBX-8 | CWE | 20 | CE | Indicates whether the result in OBX-5 is abnormal. | |
| Identifier | OBX-8.1 | ID | 12 | RE | Indicates the type of abnormal result. See Table HL70078 – Abnormal Flags for valid values. Expecting code value only. | |
| | | | | | Valid values include (excerpt of Table HL70078): | |
| | | | | | Value | Description |
| | | | | | A | Abnormal |
| | | | | | H | Above high normal |
| | | | | | L | Below low normal |
| LL | Below lower panic limits | | | | | |
| Text | OBX-8.2 | TX | 80 | CE | Expecting the standardized text description that corresponds with the code in OBX-8.1. | |
| Name of Coding System | OBX-8.3 | ST | 25 | CE | Identifies the type of code in OBX-8.1. Literal value: “HL70078”, if OBX-8.1 and OBX-8.2 are populated. | |
| Alternate Identifier | OBX-8.4 | ID | 12 | RE | An alternate code the laboratory uses to uniquely identify the abnormal flag. | |
| Alternate Text | OBX-8.5 | TX | 80 | CE | The text description that corresponds with the local code in OBX-8.4. | |
| Name of Alternate Coding System | OBX-8.6 | ST | 25 | CE | Identifies the type of code in OBX-8.4. For local code sets, expecting “L” OR “99ZZZ”, where “ZZZ” represents the alphanumeric characters used to identify the local coding system. | |
| Coding System Version ID | OBX-8.7 | ST | 10 | RE | Version of the HL70078 coding system used in OBX-8.1. | |
| Alternate Coding System Version ID | OBX-8.8 | ST | 10 | RE | Version of the laboratory’s internal coding system used in OBX-8.4. | |

| Observation Result Status | OBX-11 | ID | 1 | R | This field contains the status of the result for the observation. Expecting code value only. | | | | | | | | | | | | |
|------------------------------|------------------------|-----|-----|----|---|---|-------------|---|---|---|--|---|---------------------|---|-----------------|---|------------------------|
| | | | | | Valid values include (excerpt of Table HL70085): | | | | | | | | | | | | |
| | | | | | <table><tr><th>Value</th><th>Description</th></tr><tr><td>C</td><td>Record coming over is a correction and thus replaces a final result</td></tr><tr><td>F</td><td>Final results; Can only be changed with a corrected result</td></tr><tr><td>P</td><td>Preliminary results</td></tr><tr><td>S</td><td>Partial results</td></tr><tr><td>W</td><td>Post original as wrong</td></tr></table> | Value | Description | C | Record coming over is a correction and thus replaces a final result | F | Final results; Can only be changed with a corrected result | P | Preliminary results | S | Partial results | W | Post original as wrong |
| | | | | | Value | Description | | | | | | | | | | | |
| | | | | | C | Record coming over is a correction and thus replaces a final result | | | | | | | | | | | |
| | | | | | F | Final results; Can only be changed with a corrected result | | | | | | | | | | | |
| | | | | | P | Preliminary results | | | | | | | | | | | |
| S | Partial results | | | | | | | | | | | | | | | | |
| W | Post original as wrong | | | | | | | | | | | | | | | | |
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| Date/Time of the Observation | OBX-14 | TS | 26 | O | The clinically relevant date/time of the observation. For specimen-based laboratory reporting, provide the specimen collection date and time. This field must contain the same value as OBR-7 and SPM-17.1. Format: YYYYMMDD[HHMM[SS]] | | | | | | | | | | | | |
| Producer’s Reference | OBX-15 | CWE | | O | If populated, the field must identify the same performing organization as that identified in OBX-23 (Performing Organization Name). | | | | | | | | | | | | |
| Identifier | OBX-15.1 | ST | | R | The producer’s identifier; expecting a CLIA. | | | | | | | | | | | | |
| Text | OBX-15.2 | ST | | R | The name of the producer, which corresponds to the identifier in OBX-15.1. | | | | | | | | | | | | |
| Identifier Type Code | OBX-15.3 | ID | | CE | Component identifies the type of ID in OBX-15.1. | | | | | | | | | | | | |
| Observation Method | OBX-17 | CWE | 250 | RE | Method of testing by the laboratory. If the LOINC in OBX-3 does not indicate the test method, this field shall be populated. | | | | | | | | | | | | |
| Identifier | OBX-17.1 | ST | 20 | RE | Expecting a lab test method code from PHVS LabTestMethods CDC – Observation Methods. | | | | | | | | | | | | |
| Text | OBX-17.2 | ST | 199 | CE | The standardized text description that corresponds with the lab test method code in OBX-17.1. | | | | | | | | | | | | |

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|------------------------------------|------------|-----|-----|----|--|
| Name of Coding System | OBX-17.3 | ID | 20 | CE | Identifies the type of code in OBX-17.1. Literal value: “CDCPHVS”, if OBX-17.1 and OBX-17.2 are populated. |
| Alternate Identifier | OBX-17.4 | ST | 20 | RE | An alternate code the laboratory uses to uniquely identify the observation method. |
| Alternate Text | OBX-17.5 | ST | 199 | CE | The text description that corresponds with the local code in OBX-17.4. |
| Name of Alternate Coding System | OBX-17.6 | ID | 20 | CE | Identifies the type of code in OBX-17.4. For local code sets, expecting “L” OR “99ZZZ”, where “ZZZ” represents the alphanumeric characters used to identify the local coding system. |
| Coding System Version ID | OBX-17.7 | ST | 10 | RE | Version of the PHVS_LabTestMethods_CDC – Observation Methods coding system used in OBX-17.1. |
| Alternate Coding System Version ID | OBX-17.8 | ST | 10 | RE | Version of the laboratory’s internal coding system used in OBX-17.4. |
| Date/Time of Analysis | OBX-19 | TS | 26 | RE | Date and time when the specimen testing was performed. Format: YYYYMMDD[HHMM[SS]] |
| Performing Organization Name | OBX-23 | XON | 567 | R | This field identifies the laboratory that produced the test result described in this OBX segment. |
| Organization Name | OBX-23.1 | ST | 50 | CE | The name of the laboratory that produced the test result. Please discuss format of name and any abbreviations with VDH. |
| Organization Name Type | OBX-23.2 | IS | 20 | RE | Defines the type of name in OBX-23.1. Use of legal name (“L”) is expected by VDH. If empty, legal name is assumed. See Table HL70204 – Organizational Name Type for other valid values. |
| Assigning Authority | OBX-23.6 | HD | 227 | CE | Identifies the system, application, or organization that assigned the performing laboratory ID in OBX-23.10. |
| Assigning Authority Name | OBX-23.6.1 | IS | 20 | RE | The name of the assigning authority that assigned the performing laboratory ID in OBX-23.10. “CLIA” is expected. |
| Assigning Authority ID | OBX-23.6.2 | ST | 199 | R | The CLIA number, NPI, OID or other ID for the assigning authority. If a CLIA number is used in OBX-23.10, “2.16.840.1.113883.4.7” is expected. |

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|--|------------|-----|------|----|--|
| Assigning Authority ID Type | OBX-23.6.3 | ID | 6 | R | Expecting “CLIA” if a CLIA number is used in OBX-23.6.2, “NPI” if an NPI is used, “ISO” if an OID is used, or “ID” if an alternate identifier is used. |
| Identifier Type Code | OBX-23.7 | ID | | CE | Literal value: “XX”, if OBX-23.10 is populated. |
| Organization Identifier | OBX-23.10 | ST | | RE | The performing laboratory identifier. The CLIA number is expected. |
| Performing Organization Address | OBX-24 | XAD | 106 | R | This field identifies the performing laboratory address. |
| Street Address Line 1 | OBX-24.1 | ST | 100 | RE | The performing laboratory’s street/mailling address (e.g., “123 Main St.”). If the performing laboratory’s address has a suite number, please include it in Street Address Line 1. |
| Street Address Line 2 | OBX-24.2 | ST | 100 | RE | |
| City | OBX-24.3 | ST | 50 | RE | The city in which the performing laboratory is located. |
| State | OBX-24.4 | ST | 50 | RE | The state in which the performing laboratory is located. Use the U.S. Postal Service 2-character state abbreviation (e.g., VA). |
| ZIP or Postal Code | OBX-24.5 | ST | 12 | RE | The zip code of the performing laboratory’s address. Use a valid 5-digit zip code. |
| Country | OBX-24.6 | ID | 3 | RE | Expecting “USA”. This field contains the country code where the addressee is located. Refer to Table HL70399 – Country Code for valid 3-character codes as defined by ISO 3166-1. If the field is not valued, then “USA” is assumed. |
| Address Type | OBX-24.7 | ID | 3 | RE | Defines the type of address in OBX-24. Type code “B” (Business) from Table HL70190 – Address Type is expected. If performing laboratory address is submitted, this field is required. |
| County Code | OBX-24.9 | IS | 20 | RE | Submit the FIPS code for the performing laboratory address. If address is in an independent city in Virginia, submit the city FIPS code. Use the two-digit VA state code (“51”) followed by the three-digit county/city-specific code. |
| Performing Organization Medical Director | OBX-25 | XCN | 3002 | RE | This field identifies the performing laboratory’s medical director. |

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|-----------------------------|-------------|----|-----|----|--|
| ID number | OBX-25.1 | ST | | RE | The medical director's ID number. The National Provider Identifier (NPI) is recommended. |
| Last Name | OBX-25.2 | FN | | RE | The medical director's family name/surname. |
| First Name | OBX-25.3 | ST | | RE | The medical director's given name. |
| Middle Name/Initials | OBX-25.4 | ST | | RE | The medical director's middle initial or middle name. |
| Suffix | OBX-25.5 | ST | | RE | The medical director's suffix (e.g., JR or III). |
| Prefix | OBX-25.6 | ST | | RE | The medical director's prefix (e.g., DR). |
| Assigning Authority | OBX-25.9 | HD | 227 | CE | Identifies the system, application, or organization that assigned the medical director ID in OBX-25.1. |
| Assigning Authority Name | OBX-25.9.1 | IS | 20 | RE | Expecting "CMS" if an NPI is used in OBX-25.1. If another type of identifier is used in OBX-25.1, expecting the name of the assigning authority for this identifier. |
| Assigning Authority ID | OBX-25.9.2 | ST | 199 | R | Expecting the CMS OID "2.16.840.1.113883.3.249" if an NPI is used in OBX-25.1. If another identifier is used in OBX-25.1, expecting the CLIA number, NPI, OID or other ID for the assigning authority. |
| Assigning Authority ID Type | OBX-25.9.3 | ID | 6 | R | Expecting "CLIA" if a CLIA number is used in OBX-25.9.2, "NPI", if an NPI is used, "ISO" if an OID is used, or "ID" if an alternate identifier is used. |
| Name Type Code | OBX-25.10 | ID | | RE | Defines the type of name in OBX-25. Use of legal name ("L") is expected by VDH. If empty, legal name is assumed. See Table HL70200 – Name Type for other valid values. |
| Identifier Type Code | OBX-25.13 | IS | | CE | Component identifies the type of ID in OBX-25.1. Expecting "NPI" (if an NPI is used in OBX-25.1). See Table HL70203 – Identifier Type Code for other valid values. |
| Assigning Facility | OBX-25.14 | HD | 227 | RE | Identifies the facility that assigned the medical director ID in OBX-25.1. Note that if an NPI is used in OBX-25.1, there is no assigning facility and this field will be empty. |
| Assigning Facility Name | OBX-25.14.1 | IS | 20 | RE | The name of the facility that assigned the medical director ID. This field will be empty if an NPI is used in OBX-25.1. |

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|----------------------------|-------------|----|-----|---|---|
| Assigning Facility ID | OBX-25.14.2 | ST | 199 | R | The CLIA number, NPI, OID, or other ID for the assigning facility. This field will be empty if an NPI is used in OBX-25.1. |
| Assigning Facility ID Type | OBX-25.14.3 | ID | 6 | R | Expecting “CLIA” if a CLIA number is used in OBX-25.14.2, “NPI” if an NPI is used, “ISO” if an OID is used, or “ID” if an alternate identifier is used. |

| OBX NTE | | | | | |
|--|-------|----|--------|-----|--|
| The NTE segment is a common format for sending notes and comments. This optional, repeating segment may be inserted after any of the OBX segments. The NTE segment applies to the information in the segment that immediately precedes it. | | | | | |
| Field Name | Seq | DT | Length | Use | Notes/Value Set |
| Set ID – NTE | NTE-1 | SI | 4 | R | For the first NTE segment, the Set ID shall be “1”, for a second NTE segment, the Set ID shall be “2”, etc. Subsequent NTE segments under the same parent segment should increment the Set ID field. |
| Source of Comment | NTE-2 | ID | 8 | RE | Expecting value “P” if orderer/placer is source of comment or “L” if lab/filler department is source of comment. Values are from Table HL70105 – Source of Comment . |
| Comment | NTE-3 | FT | 65536 | R | Please include any relevant comments pertaining to the test results in the preceding OBX segment. |
| Comment Type | NTE-4 | CE | 60 | RE | This field contains a value to identify the type of comment in NTE-3. Please see Table HL70364 – Comment Type for valid values. |

SPECIMEN SEGMENT (SPM)

The Specimen (SPM) segment contains information regarding the type of specimen, where and how it was collected, who collected it, and some basic characteristics of the specimen.

| Field Name | Seq | DT | Length | Use | Notes/Value Set |
|-----------------------------|-----------|-----|--------|-----|--|
| Set ID – SPM | SPM-1 | SI | 4 | R | For the first SPM segment, the Set ID shall be “1”, for a second SPM segment, the Set ID shall be “2”, etc. Subsequent SPM segments should increment the Set ID field. |
| Specimen ID | SPM-2 | EIP | 80 | R | A unique identifier for the specimen. Generally, the accession number is the specimen ID. |
| Filler Assigned Specimen ID | SPM-2.2 | EI | 427 | R | A unique laboratory assigned specimen identifier. |
| Specimen Identifier | SPM-2.2.1 | ST | 199 | R | The specimen identifier. The identifier should be unique within the laboratory. If specimen identifiers are ever reused, a date stamp may need to be added to the end of the identifier to guarantee uniqueness. |
| Assigning Facility Name | SPM-2.2.2 | IS | 20 | RE | The name of the facility that assigned the specimen ID. |
| Assigning Facility ID | SPM-2.2.3 | ST | 199 | R | The CLIA number, NPI, OID, or other ID for the assigning facility. |
| Assigning Facility ID Type | SPM-2.2.4 | ID | 6 | R | Expecting “CLIA” if a CLIA number is used in SPM-2.2.3, “NPI” if an NPI is used, “ISO” if an OID is used, or “ID” if an alternate identifier is used. |
| Specimen Type | SPM-4 | CWE | 250 | R | Identifies the source of the specimen. |
| Identifier | SPM-4.1 | ST | 20 | RE | Expecting a unique identifier for the specimen. Please use SNOMED specimen codes or identifiers from Table HL70487 – Specimen Type . |
| Description | SPM-4.2 | ST | 199 | CE | Expecting the standardized text description for the specimen identifier in SPM-4.1. |
| Name of Coding System | SPM-4.3 | ID | 20 | CE | Identifies the type of code in SPM-4.1. Expecting “SCT”, if a SNOMED specimen code is used or “HL70487”, if a specimen code from Table HL70487 is used. |
| Alternate Identifier | SPM-4.4 | ST | 20 | RE | Alternate code the laboratory uses to uniquely identify the specimen. |

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| Alternate Text | SPM-4.5 | ST | 199 | CE | The text description for the code in SPM-4.4. |
| Name of Alternate Coding System | SPM-4.6 | ID | 20 | CE | Identifies the type of code in SPM-4.4. If a specimen code from Table HL70070 – Specimen Source is used in SPM-4.4, expecting “HL70070”. For local code sets, expecting “L” OR “99ZZZ”, where “ZZZ” represents the alphanumeric characters used to identify the local coding system. |
| Coding System Version ID | SPM-4.7 | ST | 10 | RE | Version of the coding system used in SPM-4.1. |
| Alternate Coding System Version ID | SPM-4.8 | ST | 10 | RE | Version of the laboratory’s internal coding system used in SPM-4.4. |
| Specimen Type Modifier | SPM-5 | CWE | 250 | RE | Together with SPM-4 (Specimen Type), this field allows for further identification of the specimen. |
| Identifier | SPM-5.1 | ST | 20 | RE | Expecting a code for the specimen type modifier. Please see PHVS ModifierOrQualifier CDC – Modifier or Qualifier for valid values. |
| Description | SPM-5.2 | ST | 199 | CE | Expecting the standardized text description for the code in SPM-5.1. |
| Name of Coding System | SPM-5.3 | ID | 20 | CE | Identifies the type of code in SPM-5.1. Literal value: “SCT”, if SPM-5.1 and SPM-5.2 are populated. |
| Alternate Identifier | SPM-5.4 | ST | 20 | RE | An alternate code the laboratory uses to uniquely identify the specimen type modifier. |
| Alternate Text | SPM-5.5 | ST | 199 | CE | Expecting a text description for the local code in SPM-5.4. |
| Coding System Version ID | SPM-5.7 | ST | 10 | RE | Version of the SNOMED coding system used in SPM-5.1. |
| Alternate Coding System Version ID | SPM-5.8 | ST | 10 | RE | Version of the laboratory’s internal coding system used in SPM-5.4. |
| Specimen Additives | SPM-6 | CWE | 250 | RE | Information regarding any substances added to the specimen before or at the time of specimen collection. |
| Identifier | SPM-6.1 | ST | 20 | RE | Expecting a code for the specimen additive. Please see Table HL70371 – Specimen Additives for valid values. |

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| Description | SPM-6.2 | ST | 199 | CE | Expecting the standardized text description for the code in SPM-6.1. |
| Name of Coding System | SPM-6.3 | ID | 20 | CE | Identifies the type of code in SPM-6.1. Literal value: "HL70371", if SPM-6.1 and SPM-6.2 are populated. |
| Alternate Identifier | SPM-6.4 | ST | 20 | RE | An alternate code the laboratory uses to uniquely identify the specimen additive. |
| Alternate Text | SPM-6.5 | ST | 199 | CE | Expecting a text description for the local code in SPM-6.4. |
| Name of Alternate Coding System | SPM-6.6 | ID | 20 | CE | Identifies the type of code in SPM-6.4. For local code sets, expecting "L" OR "99ZZZ", where "ZZZ" represents the alphanumeric characters used to identify the local coding system. |
| Coding System Version ID | SPM-6.7 | ST | 10 | RE | Version of the coding system used in SPM-6.1. |
| Alternate Coding System Version ID | SPM-6.8 | ST | 10 | RE | Version of the laboratory's internal coding system used in SPM-6.4. |
| Specimen Collection Method | SPM-7 | CWE | 250 | RE | Identifies the method used to collect the specimen. |
| Identifier | SPM-7.1 | ST | 20 | RE | Expecting a code for the specimen collection method. Use SNOMED specimen codes or values from Table HL70488 – Specimen Collection Method . |
| Description | SPM-7.2 | ST | 199 | CE | Expecting the standardized text description for the code in SPM-7.1. |
| Name of Coding System | SPM-7.3 | ID | 20 | CE | Identifies the type of code in SPM-7.1. Expecting "SCT" if a SNOMED specimen code is used in SPM-7.1 and SPM-7.2 or "HL70488" if a specimen code from Table HL70488 is used. |
| Alternate Identifier | SPM-7.4 | ST | 20 | RE | An alternate code the laboratory uses to uniquely identify the specimen collection method. |
| Alternate Text | SPM-7.5 | ST | 199 | CE | Expecting a text description for the local code in SPM-7.4. |

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| Name of Alternate Coding System | SPM-7.6 | ID | 20 | CE | Identifies the type of code in SPM-7.4. For local code sets, expecting “L” OR “99ZZZ”, where “ZZZ” represents the alphanumeric characters used to identify the local coding system. |
| Coding System Version ID | SPM-7.7 | ST | 10 | RE | Version of the coding system used in SPM-7.1. |
| Alternate Coding System Version ID | SPM-7.8 | ST | 10 | RE | Version of the laboratory’s internal coding system used in SPM-7.4. |
| Specimen Source Site | SPM-8 | CWE | 250 | RE | Identifies the source from which the specimen was obtained. For biological samples, the source may be the anatomical site where the specimen was collected. |
| Identifier | SPM-8.1 | ST | 20 | RE | Expecting a code for the specimen source site. Please see PHVS BodySite HITSP – Body Site for valid values. |
| Description | SPM-8.2 | ST | 199 | CE | Expecting the standardized text description for the code in SPM-8.1. |
| Name of Coding System | SPM-8.3 | ID | 20 | CE | Identifies the type of code in SPM-8.1. Literal value: “SCT”, if SPM-8.1 and SPM-8.2 are populated. |
| Alternate Identifier | SPM-8.4 | ST | 20 | RE | An alternate code the laboratory uses to uniquely identify the specimen source site. |
| Alternate Text | SPM-8.5 | ST | 199 | CE | Expecting a text description for the local code in SPM-8.4. |
| Name of Alternate Coding System | SPM-8.6 | ID | 20 | CE | Identifies the type of code in SPM-8.4. For local code sets, expecting “L” OR “99ZZZ”, where “ZZZ” represents the alphanumeric characters used to identify the local coding system. |
| Coding System Version ID | SPM-8.7 | ST | 10 | RE | Version of the coding system used in SPM-8.1. |
| Alternate Coding System Version ID | SPM-8.8 | ST | 10 | RE | Version of the laboratory’s internal coding system used in SPM-8.4. |
| Original Text | SPM-8.9 | ST | | RE | If specimen source site identifier and alternate identifier are not present, then this component is desired. |
| Specimen Source Site Modifier | SPM-9 | CWE | 250 | RE | Together with SPM-8 (Specimen Source Site), this field allows for further identification of the source from which the specimen was obtained. |

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| Identifier | SPM-9.1 | ST | 20 | RE | Expecting a code for the specimen source site modifier. Please see PHVS ModifierOrQualifier – Modifier or Qualifier for valid values. |
| Description | SPM-9.2 | ST | 199 | CE | Expecting the standardized text description for the code in SPM-9.1. |
| Name of Coding System | SPM-9.3 | ID | 20 | CE | Identifies the type of code in SPM-9.1. Literal value: “SCT”, if SPM-9.1 and SPM-9.2 are populated. |
| Alternate Identifier | SPM-9.4 | ST | 20 | RE | An alternate code the laboratory uses to uniquely identify the specimen source site modifier. |
| Alternate Text | SPM-9.5 | ST | 199 | CE | Expecting a text description for the local code in SPM-9.4. |
| Name of Alternate Coding System | SPM-9.6 | ID | 20 | CE | Identifies the type of code in SPM-9.4. For local code sets, expecting “L” OR “99ZZZ”, where “ZZZ” represents the alphanumeric characters used to identify the local coding system. |
| Coding System Version ID | SPM-9.7 | ST | 10 | RE | Version of the coding system used in SPM-9.1. |
| Alternate Coding System Version ID | SPM-9.8 | ST | 10 | RE | Version of the laboratory’s internal coding system used in SPM-9.4. |
| Specimen Collection Site | SPM-10 | CWE | 250 | O | This optional field differs from SPM-8 (Specimen Source Site) in that it identifies the point of entry into the source site for specimen collection. |
| Specimen Collection Amount | SPM-12 | CQ | 20 | RE | Identifies the amount of specimen collected. This can be reported as a volume or a weight/mass. |
| Quantity | SPM-12.1 | NM | 16 | R | This field contains the quantity of the specimen collected. |
| Units | SPM-12.2 | CE | 183 | RE | This field contains the units of measure for the amount of specimen collected. |
| Specimen Description | SPM-14 | ST | 250 | O | This field contains additional information about the specimen. |
| Specimen Collection Date/Time | SPM-17 | DR | 26 | R | Identifies the date and time range over which the sample was collected. |

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| Range Start Date/Time | SPM-17.1 | TS | 26 | RE | The date and time when specimen collection started. This value should match OBR-7 (Observation Start Time) and OBX-14 (Date/Time of the Observation). Format: YYYYMMDD[HHMM[SS]] |
| Range End Date/Time | SPM-17.2 | TS | 26 | RE | The date and time when specimen collection stopped. This value should match OBR-8 (Observation End Date/Time). Format: YYYYMMDD[HHMM[SS]] |
| Specimen Received Date/Time | SPM-18 | TS | 26 | R | Identifies the date and time when the specimen was received at the diagnostic service. Format: YYYYMMDD[HHMM[SS]] |

Value Sets

The value sets used in the ELR message are listed below, with links to allow you to access the full value sets. Most value sets associated with ELR 2.5.1 messaging are available from the PHIN VADS site at <https://phinvads.cdc.gov/vads/SearchVocab.action>. PHIN VADS is a web-based enterprise vocabulary system for accessing, searching, and distributing vocabularies used in public health and clinical care practice.

[Commonly Used UCUM Codes for Healthcare Units](#)

[PHVS LabTestMethods CDC](#) – Observation Methods

[PHVS ModifierOrQualifier CDC](#) – Modifier or Qualifier

[PHVS_BodySite_HITSP](#) – Body Site

[Table HL70001 – Administrative Sex](#)

[Table HL70002 – Marital Status](#)

[Table HL70004 – Patient Class](#)

[Table HL70005 – Race](#)

[Table HL70007 – Admission Type](#)

[Table HL70063 – Relationship](#)

[Table HL70070 – Specimen Source](#)

[Table HL70078 – Abnormal Flags](#)

[Table HL70085 – Observation Result Status](#)

[Table HL70105 – Source of Comment](#)

[Table HL70123 – Result Status](#)

[Table HL70125 – Value Type](#)

[Table HL70131 – Contact Role](#)

[Table HL70155 – Acknowledgement Type](#)

[Table HL70189 – Ethnic Group](#)

[Table HL70190 – Address Type](#)

[Table HL70200 – Name Type](#)

[Table HL70201 – Telecommunication Use Code](#)

[Table HL70202 – Telecommunication Equipment Type](#)

[Table HL70203 – Identifier Type Code](#)

[Table HL70204 – Organizational Name Type](#)

[Table HL70364 – Comment Type](#)

[Table HL70371 – Specimen Additives](#)

[Table HL70399 – Country Code](#)

[Table HL70487 – Specimen Type](#)

[Table HL70488 – Specimen Collection Method](#)

Revision History

| VERSION | RELEASED | APPROVED BY | BRIEF DESCRIPTION |
|-------------|-----------|-------------------|---|
| Version 1.0 | 2011 | | <ul style="list-style-type: none"> Version 1.0. |
| Version 2.0 | 12/4/2012 | | <ul style="list-style-type: none"> Additions and changes to the PV1 and NK1 segments. |
| Version 3.0 | 4/18/2014 | VDH ELR Workgroup | <ul style="list-style-type: none"> Significant revisions throughout the document reflecting changes in HL7 standards and VDH ELR submission requirements. Revisions include: Addition of the <i>Onboarding Process for ELR in Virginia</i>. Addition of the <i>General VDH Submission Requirements</i>. Defined acceptable identifiers (e.g., CLIA numbers, OIDs) and vocabulary (e.g., LOINC, SNOMED, UCUM). Refined guidance on ELR message segments, structure, and formatting. |
| Version 3.5 | 8/1/2014 | VDH ELR Workgroup | <ul style="list-style-type: none"> Updated VDH expectations for MSH-15 (Accept Acknowledgement Type). Corrected the CMS OID from “2.6.840.1.113883.19.4.6” to “2.16.840.1.113883.3.249”. Defined “order callback phone number” in OBR-17 to be the ordering provider’s phone number rather than the ordering facility’s phone number. Added the <i>Revision History</i>. |
| Version 4 | 9/22/2014 | VDH ELR Workgroup | <ul style="list-style-type: none"> Updated submission requirements for MSH-21 (Message Profile Identifier). Updated submission requirements (from “United States” to “USA”) for address country codes. |
| Version 4.5 | 1/12/2015 | VDH ELR Workgroup | <ul style="list-style-type: none"> Updated <i>Onboarding Process for ELR in Virginia</i> section. Determined NK1-3 field should be submitted as a triplet (NK1-3.1, NK1-3.2, NK1-3.3). Identified data types and field lengths for OBX-8 (Abnormal Flags), OBX-6 (Units), and OBX-17 (Observation Method). Updated fax number from (804) 864-7970 to (804) 864-8052 for faxing paper lab copies. |
| Version 5.0 | 8/1/2018 | VDH ELR Workgroup | <ul style="list-style-type: none"> Addition of LOINC and SNOMED resources link under Useful Resources section. Significant additions made to the NK1 segment. Addition of the Patient Visit Information (PV1) segment. Addition of the fields PID-14.9, PID-16, NK1-5.12, NK1-7, ORC-14, ORC-17, ORC-23.12, OBR-17.12, OBR-31, OBX-15, and SPM-8.9. Updated definition of Ordering Organization in ORC-21 to provide more specific language for clarity. Addition of the language “Expecting code value only” to all necessary tables for clarity. |

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| | | | <ul style="list-style-type: none">Added a paragraph to the cover page indicating that VDH is aware of the change of terminology to Promoting Interoperability. VDH is not using the term Promoting Interoperability until all VDH resources reflect this change. |
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